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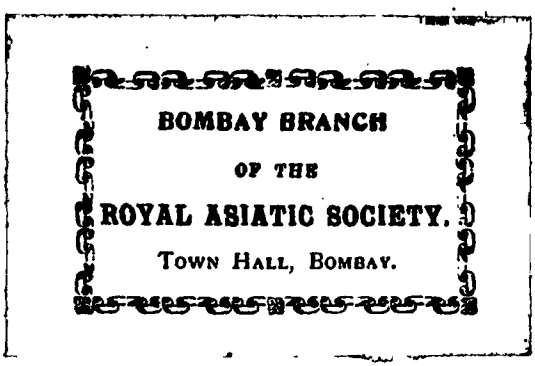

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THE ALPHABET

AN ACCOUNT OF THE

Origin and Development of Letters

VOL. I.

THE ALPHABET

AN ACCOUNT OF THE

Origin and Development of Letters

65223

By ISAAC TAYLOR, M.A., LL.D.

IN TWO VOLUMES

VOL. I.

Semitic Alphabets

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PREFACE.

THIS book represents the labour of many years It was undertaken with the intention of compiling a brief account of recent discoveries as to the origin of the Alphabet, and its subsequent developments. Knowing how extensive was the literature of the subject, I did not suppose that there would be need or place for original research in connection with such a well-worn theme. It soon became manifest, however, not only that the History of the Alphabet had never been written, but that to some extent it had not even been discovered. Although many departments of the subject had been exhaustively discussed, I found that the origin of several important Alphabets would have to be investigated anew, while with regard to some of the best known scripts various collateral problems still awaited a solution. Such questions, arising one by one, necessitated unforseen and tedious investigation, the accumulation of many books, and the study of manuscripts and inscriptions in distant Libraries and Museums. Hence the delays in the appearance of a work, a considerable portion of which had been

written when it was originally announced for publication in 1876.

In dealing with a subject so extensive, and with materials so copious, it has proved no easy task to keep the book within any reasonable limits. Mere technical details have been as far as possible suppressed, or relegated to the notes, while opinions which are stated in a sentence, or data which are epitomized in a single column of a Table, frequently represent the results of prolonged research. The vast accumulations of epigraphic material which are now at command have been carefully sifted, so as to make the account of inscriptions and manuscripts selective, rather than exhaustive. It seemed better to attempt a somewhat full description of a few great cardinal monuments, rather than to give mere barren references to many of only secondary importance. *Inopem me copia fecit* is the excuse I have to plead for numberless deliberate but unavoidable omissions. If the book was to be complete, it was impossible that it should also be comprehensive.

The difficulty of compressing essential details into small compass has been chiefly met by presenting the fundamental facts in tabular form. The numerous Tables of Alphabets, which will doubtless only be glanced at by the general reader, will be found by the real student to be of primary importance.

It will probably be a matter of surprise that the ground taken up in this book should not already have

been occupied. An explanation, however, is not far to seek. It is only within the last few years that extensive discoveries of fresh epigraphic material, the reproduction in trustworthy photographic facsimile of important records, the gradual recognition of those fundamental principles of Palæographic Science which are set forth in the concluding chapter of this book, together with the publication of valuable monographs dealing with small departments of the subject, have made possible a History of the Alphabet. It cannot, however, be affirmed that its history has hitherto been written. Existing treatises on the subject are either books belonging to the pre-scientific era, such as the works of Astle and Humphreys, or are wholly popular and uncritical, like Faulmann's *Geschichte der Schrift*, or mere outline sketches by competent writers, such as the essays of Maspero and Peile, or uncompleted fragments, like the brilliant chapters of the vast work which Lenormant, in despair, has abandoned in the middle of a sentence.

But, although no general History of the Alphabet exists, limited departments of the subject have been diligently investigated by a host of specialists. One obscure point after another has been cleared up by the labours of scholars who have devoted themselves to the exhaustive treatment of special branches of epigraphy or numismatics. It may suffice to specify the labours of Blau on the coins of the Achæmenian satraps, of Levy on the Sinaitic inscriptions, or of

Burnell on the ancient Dravidian Alphabets. Many pages would be occupied by a mere enumeration of similar monographs. Some of the most valuable of these treatises are practically inaccessible or unknown, being scattered through the volumes of scientific periodicals and the Transactions of learned Societies.

Such researches, while they have made possible the task of the present writer, have at the same time rendered it a more formidable enterprise. In these days of excessive specialization, to venture on a wide field, small portions of which have occupied the exclusive attention of eminent scholars, requires no little courage, and none the less, because, while making constant use of their labours, it has been needful to exercise an independent judgment as to their conclusions. To take shelter beneath the authority of great names is doubtless the readiest way of escaping blame, but this is not the method by which knowledge can be advanced. If I have ventured occasionally to differ from scholars of such eminence as Benfey, Ritschl, Böckh, Lepsius, Lagarde, Lenormant, Mommsen, Kirchhoff, or Wattenbach, it has been with the utmost diffidence, and because I have found it impossible to reconcile their opinions with the logic of indisputable facts.

While endeavouring honestly to recognize the claims of all fellow-workers in the field, and to take credit for no discovery which I did not believe to be my own, I have avoided parade of authorities for the facts on

which opinions have been founded, or any needless multiplication of references to standard works which go over portions of my own ground. Among the arts of bookmaking no process is more facile or more useless than the compilation of bulky foot-notes, crammed with references, which give a book a cheap but deceptive appearance of erudition. Thus to have burdened the present volumes would have easily doubled their size, and for the sake of a very dubious advantage. The ordinary reader has no occasion for such notes, while to the specialist they are superfluous, as he necessarily has at hand works of reference in which this need is amply provided for. Thus, in order to trace the epigraphic material on which the account of the Phœnician Alphabets is based, it will usually suffice for the student to turn to Schröder's *Phönizische Sprache*, or to Lenormant's *Alphabet Phénicien*. Similarly, for the Hellenic Alphabets, the great *Corpora Inscriptionum*, Greek, Attic, Latin, and Italic, with the hand-books of Kirchhoff, Fabretti, Hicks, Wattenbach, and Gardthausen, will, as a rule, supply the needful references.

Where no such systematic manuals are available the chief sources of information have been indicated in general bibliographical notes, which it is believed will enable any student of ordinary diligence to discover for himself the authorities for all essential facts. These notes, it is hoped, may also prove useful to those who may desire to enter upon the study of any special

department of Palæography, or to use this book as a general introduction to the subject.

With regard to the spelling of foreign, and especially of Oriental names, I have endeavoured to keep to accepted usages, and to avoid all appearance of pedantry. It seems inexpedient to write Narbadá, Mírath, Dihli and Kálíghát, instead of the familiar forms Nerbudda, Meerut, Delhi and Calcutta. Such innovations teach nothing to the learned, and only perplex the simple. Again, in the case of a single language, precise transliteration presents no formidable difficulties: in dealing with many languages it is otherwise. Any system of diacritical marks which aims at being universal must necessarily be either cumbrous, incomplete, or inconsistent. If the same symbol be used invariably to denote the same precise sound, it would be needful to make use of an artificial alphabet containing upwards of seventy vowel signs, while the nasal, *n*, would require twelve separate symbols, and the liquid, *r*, no fewer than twenty-three;—an expedient which would drive writers, readers, and printers, to despair.

A perfect system being practically unattainable, transliteration becomes only a question of degree. Where ought the line to be drawn? If, as is customary, we write Aṣoka, Páli, Devanágarí and Nepál, we ought also, to be consistent, write Tamiḷ, Sanskṛit, Drávidian, Baṅgál, Bráhman, Prákṛit and Mahráṭhí, as well as Islám, Afghán and Hindústán. But even

the most rigorous purists are occasionally content in these and similar instances to follow ordinary usages.

Nor have I thought it needful to adopt the somewhat pedantic spelling of Greek names which is now in vogue, but have adhered to the system followed by such scholars as Professors Jowett, Jebb, and Ellis, who are still content to spell as Bentley and Porson spelt. To write Homêros and Thoukudidês, Ktêsias and Kuklôps, is an affectation which cannot be justified even on the ground of accuracy, since the very forms of the letters which confront us on the page testify that Greek names transliterated into a Latin alphabet are subject to the laws of Latin phonology. Names which have established themselves in English may retain their familiar dress, names commonly used by Latin authors may be spelt, in our Latin alphabet, according to the Latin system of transliteration, while Greek names known only from an inscription or a coin may perhaps be conformed to Greek orthography.

Lastly, I have to acknowledge the generous aid of many eminent specialists who have placed at my disposal their stores of knowledge or of books. To M. Lenormant, Mr. A. J. Ellis, Professors Friedrich Müller, Jagić, and Robertson Smith my obligations have been partially acknowledged in the notes. Dr. Euting has most kindly allowed me to discuss with him many obscure points, and has revised my account of the Aramean and Iranian alphabets. Professor Jebb, Mr. Morfill, Dr. Burnell, Mr. Cust, and Mr. Stallebrass

have supplied valuable suggestions in connection with the Greek, the Slavonic, the Indian, and the Mongolian alphabets, and have read and annotated many of the proofs. To Professor Percy Gardner and Mr. Barclay Head I have never applied in vain for information respecting coins, by which alone the history of several obscure local alphabets can be traced. The difficulty, in a remote Yorkshire village, of obtaining access to costly or unpurchasable books has been greatly lessened by the kindness of Dr. Rost and Mr. Vaux. But my thanks are more especially due to my friend Professor Sayce, who, during the long course of years that the book has been in progress, has given me constant encouragement in my task, taking the trouble to read nearly all the proofs, and most generously allowing me to make use of his own unpublished discoveries in connection with several of the most difficult scripts with which I have had to deal, such, for instance, as the Hittite and Cuneiform syllabaries, and the Asianic alphabets.

The typographic difficulties involved in the production of these pages have been so formidable, that a word of acknowledgment is due to the skill and pains with which they have been overcome by my printers, Messrs. Gilbert and Rivington, who have placed at my disposal their collection of Oriental types, unrivalled probably by any private office, and excelled only by the Government establishments at Paris and Vienna.

I. T.

SETTRINGTON, *March*, 1883.

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CHAPTER I.

THE INVENTORS OF WRITING.

§ 1. *Alphabetic and non-Alphabetic Writing.* § 2. *Ideograms and Phonograms.* § 3. *Classification of the Primitive Systems of Writing.* § 4. *The Picture-writing of Savage Tribes.* § 5. *The Chinese Characters.* § 6. *The Japanese Syllabaries.* § 7. *The Cuneiform Writing.* § 8. *The Egyptian Hieroglyphics.*

§ 1. ALPHABETIC AND NON-ALPHABETIC WRITING.

To us nothing seems more natural or more easy than to express on paper the sounds of our spoken words by means of those twenty-six simple signs which we call the letters of the Alphabet. The phrase "as easy as A.B.C." has actually become a proverbial expression.

And yet, if we set aside the still more wonderful invention of speech, the discovery of the Alphabet may fairly be accounted the most difficult as well as the most fruitful of all the past achievements of

the human intellect. It has been at once the triumph, the instrument, and the register of the progress of our race.

But, long before the Alphabet had been invented, men had contrived other systems of graphic representation by means of which words could be recorded. The discovery of some rude form of the art of writing was, we may believe, the first permanent step that was taken in the progress towards civilization. Till men could leave behind them a record of acquired knowledge the sum of their acquisitions must have remained almost stationary. Thus only could successive generations be enabled to profit by the labours of those who had gone before, and begin their onward progress from the most advanced point which their predecessors had attained.

It is true that at a time when writing was unknown it would be possible for civilization to advance in certain defined directions. There would, for example, be nothing to prevent a considerable development of artistic skill; the metallurgic, the ceramic, and the textile arts might flourish, and certain forms of poetry—lyric, epic, and dramatic—would not altogether be impossible. All this might easily be the case, but, on the other hand, law would be mainly custom, science could be little more than vague tradition, history would be uncertain legend, while religion must have consisted mainly of rhythmic adorations, and of formulas of magical incantation. The Vedic hymns,

the Arval chants, the rhapsodies of the Kalevala, the metrical maledictions of Accadian priests, the tale of Troy, the legend of Romulus, the traditional folk lore of the Maories, may give us a measure of the extreme limits which are attainable by the religion, the literature, the history, and the science of unlettered nations. It is more than a mere epigram to affirm that unlettered races must of necessity be illiterate.

But not only may a people have a literature without letters, but they may possess the Art of Writing without the knowledge of an Alphabet. Every system of non-alphabetic writing will, however, either be so limited in its power of expression as to be of small practical value, or, on the other hand, it will be so difficult and complicated as to be unsuited for general use. It is only by means of the potent simplicity of the alphabet that the art of writing can be brought within general reach. The familiar instances of Egypt, Assyria, and China are sufficient to prove that without the alphabet any complete system for the graphic representation of speech is an acquirement so arduous as to demand the labour of a lifetime. Under such conditions, science and religion necessarily tend to remain the exclusive property of a sacerdotal caste; any diffused and extended national culture becomes impossible, religion degenerates into magic, the chasm which separates the rulers and the ruled grows greater and more impassable, and the very art of writing, instead of being the most effective of all the means of progress,

becomes one of the most powerful of the instruments by which the masses of mankind can be held enslaved.

Hence it must be admitted that the really important factor in human progress is not so much the discovery of a method by which words can be recorded, as the invention of some facile graphic device, such as the alphabet, by means of which the art of writing can be so far simplified as to become attainable before the years of adolescence have been passed.

But though alphabetic writing, when once invented, becomes an art easy to acquire, it has proved itself to be a discovery most difficult to effect. To invent and to bring to perfection the score or so of handy symbols for the expression of spoken sounds which we call our Alphabet, has proved to be the most arduous enterprise on which the human intellect has ever been engaged. Its achievement tasked the genius of the three most gifted races of the ancient world. It was begun by the Egyptians, continued by the Semites, and finally perfected by the Greeks. To show that from certain Egyptian hieroglyphic pictures, which were in use long before the Pyramids were erected, it is possible to deduce the actual outlines of almost every letter of our modern English Alphabet; to recount the history and to investigate the transformations of these ancient phonograms through the period of 6000 years during which they have been in use; to trace also the unity and the historical connec-

tion which subsists between all the various existing alphabets of the world; these are the tasks to which the following pages will be devoted.

§ 2. IDEOGRAMS AND PHONOGRAMS.

The Egyptian hieroglyphic writing, although it is the source of all existing alphabets, is far from being the only graphic system which has been invented, or even the only one which attained the alphabetic stage of development. Again and again, at different epochs, men of various races have independently succeeded in inventing methods of Writing, which may be defined as "the art of recording events and sending messages." In all such cases the starting point and the general direction of development have been the same. Every system of writing has begun with rude pictures of objects; these pictures, more or less conventionalized, were gradually assumed as the representatives of words, and afterwards became the symbols of more or less elementary sounds.

To use the convenient technical phraseology which is now generally adopted, we may say that Writing began with IDEOGRAMS, which afterwards developed into PHONOGRAMS.

IDEOGRAMS may be defined to be pictures intended to represent either things or thoughts. There are two kinds of Ideograms; (1) Pictures, or actual representations of objects; (2) Pictorial symbols, which are used to suggest abstract ideas.

PHONOGRAMS may be defined as the graphic symbols of sounds. They have usually arisen out of conventionalized Ideograms, which have been taken to represent sounds instead of things. Phonograms are of three kinds; (1) Verbal signs, which stand for entire words; (2) Syllabic signs, which stand for the articulations of which words are composed; (3) Alphabetic signs, or letters, which represent the elementary sounds into which the syllable can be resolved.

The development of alphabetic writing proceeds regularly through these five successive stages.

Although our own writing has reached the alphabetic stage, yet we still continue to employ a considerable number of phonographic and ideographic signs. According to Grotefend, several of the Roman numerals are ancient ideograms. That the digits I., II., III., may be regarded as pictures of fingers is implied by their very name, and on the whole it is most probable that V was at first a picture of the fork of the hand, with the fingers collected and the thumb apart, so that VV or X represents the two hands, while IV and VI would be a picture of the hand with the subtraction or addition of a finger.[1]

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[1] Ritschl, *Zur Geschichte des lateinischen Alphabets* (*Rheinisches Museum für Philologie*, 1869), has undertaken to explain the origin of the Roman numerals from unused letters of the Greek alphabet. His explanation may be accepted so far as concerns the origin of M and D from ⏀, of C from ⊙, and of L from ⏚, but with regard to the numerals V and X, relying on the opinion of Mommsen (*Die*

The zodiacal and planetary signs used by astronomers are also ideograms. The symbol ☿ is the caduceus of Mercury entwined by two serpents; ♀ is the mirror of Venus, with its handle; and ♂ is the shield and spear of Mars. The symbol ♃, which denotes Jupiter, resolves itself into an arm grasping a thunderbolt; while ♄, which stands for Saturn, is a mower's scythe. On the celebrated zodiac of Dendera, the date of which is believed to be about 700 B.C., the signs of the zodiac are exhibited in a primitive pictorial form, which leaves no doubt as to their signification. Thus we see that in ♈, the modern sign for Aries, nothing is left but the curved horns of the Ram; in ♉ we may recognize the head and horns of Taurus; in ♐ we have the arrow and a portion of the bow of Sagittarius, while the curious symbol ♍ is found actually to preserve the whole outline of the

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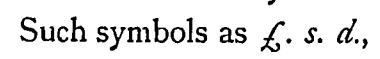
unteritalischen Dialekte, pp. 33, 34), I venture to differ even from a scholar so great as Ritschl. Not only does his explanation seem to be unsupported by evidence, but it is difficult to reconcile it with such evidence as exists. The Etruscan and Roman numerals cannot be dissociated. The famous Etruscan gem of the "Calculator," now at Paris (Fabretti, No. 2578 *ter*), seems to me to be fatal to Ritschl's theory. The two numerals, ⊕ and X, which Ritschl would identify as successive forms of the same sign, appear side by side on the calculating board, evidently denoting different numbers, doubtless 100 and 10. It is also most improbable that the two forms of theta, ⊕ and ⊙, should have the entirely different values of 10 and 100. The Etruscan 5 is Λ, apparently an ideogram of the hand like the Roman V; while I and ⟩, which stand for 1 and ½, seem to represent respectively the forefinger, and the forefinger partly doubled down.

primitive picture of Capricornus, the small circle being the head of the Goat, with the forelegs below, the body and tail extending to the left.

Among other ideograms which we employ may be enumerated the crown and the broad arrow, sundry trade marks and armorial bearings,[1] together with several printers' signs, such as ☞, !, and =. To these we may add certain shop signs, such as the barber's pole with its spiral bandages, which is a significant ideogram of the bloodletter, or the three golden balls of our pawnbrokers, a curious survival of the boluses which denoted the ancestral calling of the Florentine family of the Medici.

Such symbols as £. *s.* *d.*, though alphabetic in their origin, are now used simply as convenient phonograms, standing for the words "pounds" "shillings" and "pence." To the same class belong the signs &c., ?, $, lbs., cwt.; most of the Arabic numerals are degraded forms of Semitic letters; while the successive forms  show that the algebraical sign + is a contraction of the Latin word *et*, as − is of *minus*.

The letters of the alphabet, on the other hand, are phonograms which by the process of long continued detrition have reached an extreme stage of simplicity both as regards form and value. If the history of any one of our alphabetic symbols be traced backwards, it will be found to resolve itself ultimately into the

[1] "Canting arms" such as those of Ash-ton, a tree growing in a tun, are phonograms rather than ideograms.

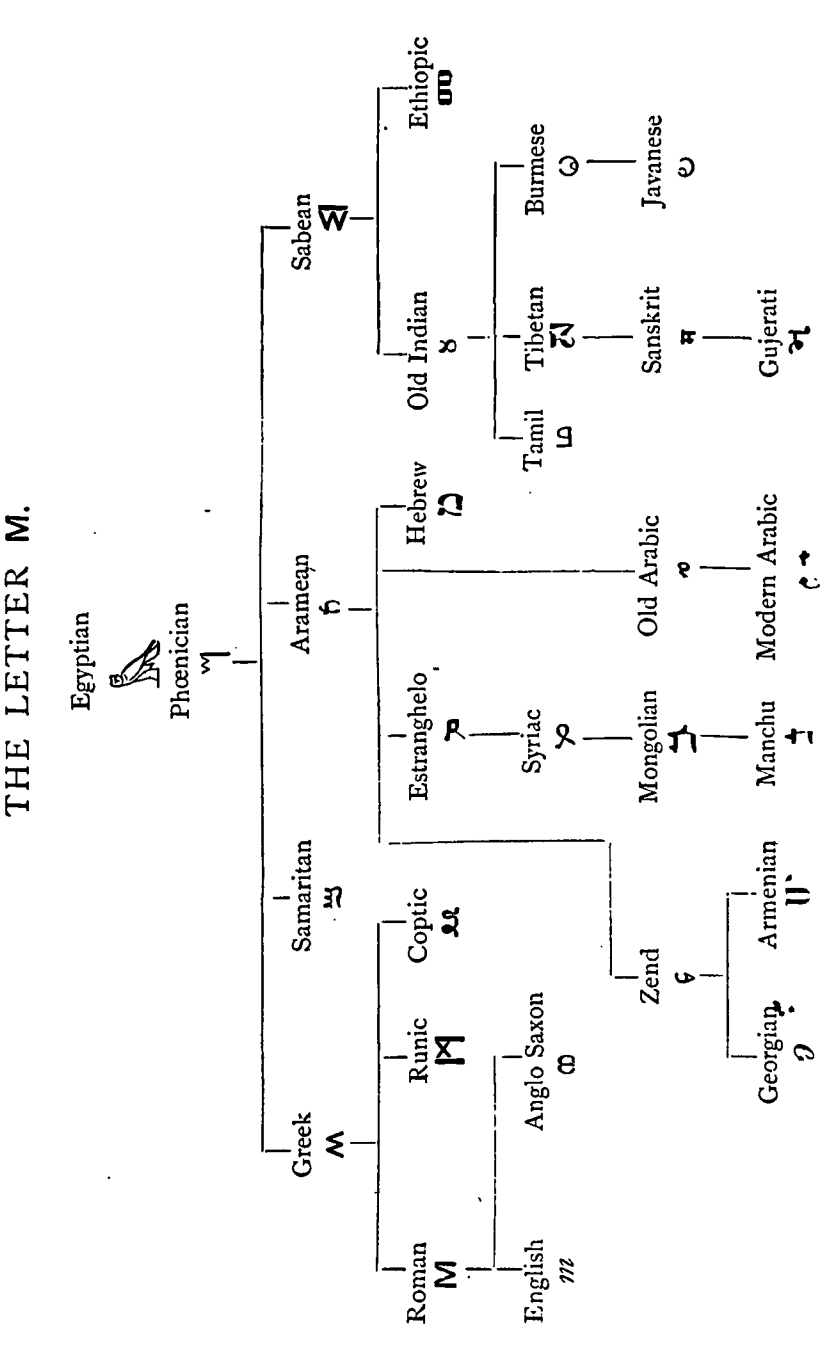
conventionalized picture of some object. In spite of long continued usage during so many centuries, the modern letter retains in almost every instance manifest features derived from the primitive picture from which it has descended.

As an illustration we may examine the history of the letter *m*, which is known to be the conventionalized picture of an owl. In the old Egyptian language the name of the owl was *mulaḳ*. The picture of the owl must have been primarily used as an ideogram to denote the bird itself, secondly as a phonogram standing for the name of the bird; it then became a syllabic sign used to express the sound *mu*, the first syllable of the name, until ultimately it came to be employed simply to denote *m*, the initial sound of that syllable. During the progress of these changes in the value of the symbol the monumental representation remained so far unchanged that it can be recognized at once as being consciously intended for the picture of an owl. But when the Hieroglyphics were written on papyrus instead of stone the old Hieroglyphic picture, , assumed a cursive form which could be more rapidly and easily written, and we have the character standing for *m*. In the Hieratic writing the picture was so entirely conventionalized that there seems to be no remaining consciousness of the significance of the original picture, the back and legs are omitted, and we obtain the forms , and . In the Demotic writing, which is still more cursive, we find further simplifications, first , and then . It will presently

be shown that the Semitic letters must have been derived from the Hieratic forms of the Egyptian characters. The earliest known specimen of Semitic writing is the inscription on the Moabite stone. In this inscription the letter *m* appears as 𐤌, a form which can without difficulty be connected with the Hieratic prototype 𓇋. From the Moabite letter the transition is easy to the early Greek form 𐌌, whence are derived the later Greek forms Μ, M and *μ*. From the Greek colonies in Italy came the Roman capital M, from which we obtain the minuscule m, and, finally, our modern script form *m*.

It will be noticed that our English letter has preserved, throughout its long history of 6000 years, certain features by which it may be recognized as the conventionalized picture of an owl. In the capital letter M the two peaks, which are the lineal descendants of the two ears of the owl, still retain between them a not inapt representation of the beak, while the first of the vertical strokes represents the breast. In the script form *m*, the central hanger stands for the beak, on either side of which are seen the two curves which represent the ears.

But this is only a small portion of the long and varied history of this letter. The same essential features may be traced with more or less distinctness throughout all the marvellous transformations which the form of this letter has undergone in other alphabets, some of the more typical of which are given in the subjoined table.


THE LETTER M.
Egyptian
Phœnician
Greek
Samaritan
Aramean
Sabean
Ethiopic
Roman
Runic
Coptic
Estranghelo
Hebrew
Old Indian
Tibetan
Burmese
English
Anglo Saxon
Syriac
Tamil
Javanese
Zend
Mongolian
Old Arabic
Sanskrit
Georgian
Armenian
Manchu
Modern Arabic
Gujerati

In these varied symbols of this sound, as well as in many other forms which might easily have been added, it is possible, without any very great difficulty, to detect surviving elements of the primitive Hieroglyphic picture, and to make out either the ears, the beak, or the breast of the owl. Almost any other letter might have been taken as an illustration of the way in which modern Alphabetic signs may be traced back to their primitive picture forms. Thus the letter F is derived from , the Hieroglyphic picture of the cerastes, or horned Egyptian asp. The two bars of our F are the survivals of the two horns, while the vertical stroke represents the body. In the letter Y, which comes from the same Hieroglyphic picture, the two horns and the body of the asp are retained; but in the derivatives V and U the body has entirely disappeared, while the reduplicated character W is constructed of four strokes, which stand simply for four horns. In the Hebrew ו, the Samaritan ו, the Armenian ւ, and the Runic ᚠ, the horns and the body may easily be discerned; in the Syriac ܘ, the Arabic و, and the Sanskrit व, the two horns have coalesced into a loop, while in the Burmese ဝ the body has disappeared, and the loop alone is left as a representative of the horns. In like manner it might be shown that the letter A was originally the picture of an eagle, R of the mouth, D of the hand, and so on with the rest.

The origin and developments of the several letters

of the alphabet will be investigated in detail in subsequent chapters; the foregoing instances being here brought forward only as illustrations of the proposition as to the pictorial origin of our letters, and also with the object of giving some general notion of the way in which all existing alphabets are linked together by the tie of a common parentage. But before entering upon the task of investigating systematically the origin and connection of the many hundred alphabetic signs which are in use in different parts of the world, it will be necessary to give an account of ideographic and syllabic signs, out of which alphabetic characters have arisen. The remainder of this preliminary chapter will therefore be devoted to a rapid sketch of the various systems of non-alphabetic writing, with the special object of investigating the processes by which primitive picture ideograms have passed through the successive stages of phonograms and syllabic signs till they finally developed into letters.

§ 3. CLASSIFICATION OF THE PRIMITIVE SYSTEMS OF WRITING.

There are no less than five great systems of picture writing which have independently been invented. These, together with their principal developments in the direction of phonetic writing, may be enumerated as follows.

We have—

I. The Egyptian.

1. The Monumental Hieroglyphic.
2. The Cursive Hieratic.
3. The Semitic Alphabet.
4. The Cursive Demotic.
5. The Coptic Alphabet (in part).

II. The Cuneiform.

1. The Linear Babylonian Hieroglyphs.
2. The Archaic Babylonian Cuneiform.
3. The Hieratic Babylonian.
4. The Susian Syllabary.
5. The Assyrian Cuneiform.
6. The Armenian Cuneiform, or Alarodian.
7. The later Babylonian (3rd Achæmenian).
8. The Protomedic Syllabary (2nd Achæmenian).
9. The Persian Cuneiform Alphabet (1st Achæmenian).

III. The Chinese.

1. The Ku-wen picture ideograms.
2. The square Kyai-shu, or "model" character.
3. The Japanese Katakana Syllabary.
4. The cursive Tsau-shu, or "grass" character.
5. The Japanese Hirakana Syllabary.

IV. The Mexican.

1. The Aztec picture ideograms.
2. The Maya Alphabet of Yucatan.

V. THE HITTITE.

1. The Carchemish Hieroglyphs.
2. The Asia Minor Syllabary.
3. The Lycian Alphabet (in part).
4. The Cypriote Syllabary.

In addition to these systems we have the independently invented picture writing of various semi-savage tribes, such as the North American Indians, the Picts, the Laplanders and the Eskimos.

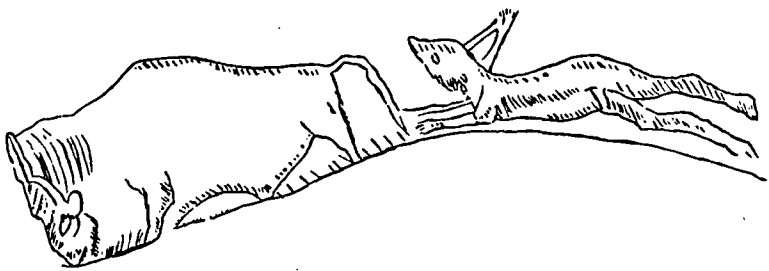
§ 4. THE PICTURE-WRITING OF SAVAGE TRIBES.

The great historic systems of writing are of such immense antiquity that their history has to be explained to a great extent by the aid of conjecture and analogy. Hence the rudimentary forms of picture writing, which we find among the less cultured races, are of considerable interest and value, inasmuch as they throw light on the earlier stages of the development of graphic symbols.

The earliest attempts at the graphic art of which we have any knowledge reach back to a more primæval period than even the piles of potsherds which mark so many of the sites of pre-historic habitation. In the rock shelters of Southern France the palæolithic men, who followed the retreating ice of the last glacial epoch, and who were contemporaries of the woolly rhinoceros, the hyena, the cave bear, and the mam-

moth, have left behind them numerous records of their pursuits, rudely scratched by means of flint flakes on the bones, horns, and tusks of the extinct beasts with whom they struggled for existence.

Probably the very earliest record which we possess of any actual event is the scene depicted on a fragment of an antler, which was found in the rock shelter at Laugerie Basse, in Auvergne. A primæval hunter, naked save for the long hair which protects his body from the cold, has crept up to a gigantic Urus, feeding in the grass, and is seen in the very act of casting a spear at his unsuspecting prey.



On another piece of antler from the same locality we have pourtrayed in the most spirited manner the charge of an elephant, who comes on with mouth wide open and elevated trunk.[1] From caves of the same palæolithic age we have also representations of the mammoth, the reindeer, the seal, the whale, and the cave bear, and on one curious fragment the chase of the wild horse is cleverly represented.

[1] See Boyd Dawkins, *Early Man in Britain*, pp. 213—215.

These graphic efforts of the palæolithic men are remarkable, not only for a very high degree of artistic excellence, but also for their immense antiquity. The "Cave Men" who have left behind them these records of their pursuits were of Pleistocene age—an antiquity not as yet measurable to us by any computation of years, or even of centuries. But the evidence enables us to assign these early attempts at a graphic record of events to a period more remote than the invention of pottery or of spinning—prior even to the taming of any domestic animal, or the cultivation of cereals; earlier, so far as we know, than the construction of any kind of human habitation.

Coming down to more recent times, we find similar attempts among many savage races. The grave of a chief is indicated by his totem scratched upon a slab: tribal boundaries are marked by stones engraved with the totem of the tribe. The very curious records on the Pictish Stones of Scotland, the pictures on the magic drums of the Laplanders, the drawings found on rocks in Australia, Siberia, Peru and Arabia, not only show how keenly men of different races have striven to record their thoughts, and to leave behind them some lasting memorial of their deeds, but are also of value as proving the essential similarity of the means which they have adopted to give effect to their desires.

Of a somewhat different nature are mnemonic records, used as an aid to the memory of a messenger

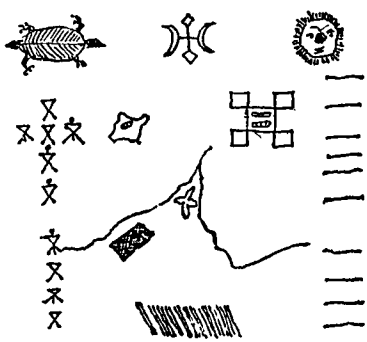
or narrator. To this category belong the wampum belts which constitute the tribal records of the North American Indians. Wampum is the name given to strings of perforated shells, usually the great clam, the pearl oyster, or the Venus shell, which are woven into belts of various patterns, into which dates, treaties, and national events are "talked." The belts are committed to the care of special custodians, and are handed down from generation to generation as the archives of the various tribes. A belt of wampum made of fresh-water univalves constituted the great charter of the Iroquois league; and the treaty which the Delaware or Leni Lenape Indians made with Penn in 1682 is commemorated by a belt of white and purple wampum, which is still preserved at Philadelphia.[1]

To the same class of records belong the quippus, or knotted cords, by which the Incas of Peru transmitted orders to the outlying provinces of their empire; and which were also made to serve as biographical memoirs of the events in the lives of distinguished persons, and were frequently buried with them in their graves.

Wampum and quippus are mnemonic records of the most elementary kind. Of a more elaborate character are the curious birch bark pictures which are employed by the North American Indians to suggest to the mind the order of the successive verses of the songs

[1] Dawson, *Fossil Men*, pp. 143, 144.

of love or war which are chanted over the camp fires. The attempt to interpret such memorials is usually hopeless unless the clue is known. More easy to explain are the warnings of danger, or the records of hunting exploits which were scratched on rocks or scored on the blazed trunks of trees, in which certain conventional signs are usually employed. Intelligible memorials of certain important events have occasionally been preserved by means of pictorial records of this nature. A good example is supplied by a rude drawing which was cut more than a century ago on the bark of a tree in Ohio. This drawing, a facsimile of which is given below, commemorates the achievements of Wingemund, a chief of the Leni Lenape tribe, who attacked the English settlements in the years 1762 and 1763.



At the bottom of the picture we see twenty-three warriors, who are bending forward to show that they are proceeding on the war-path. The sun has made ten pathways, the arrangement of which in two groups

indicates two expeditions, one of six days in duration, the other of four. We have in the centre the representation of the three English forts which were attacked. The lowest is Fort Pitt, at the confluence of two rivers, the Alleghany and the Monogehala. The square bastioned fort enclosing two buildings represents the trading station at Detroit, and the third is a smaller fort, situated on an island in Lake Erie. To the left are seen ten vanquished enemies. The four who retain their heads were taken prisoners, the other six represent the slain. In the corner is seen the figure of a tortoise. This is an ideogram which is found at the end of other similar records, and may probably denote "return to land," or perhaps "safety." The introduction of this ideogram marks the furthest stage reached by the Red Men in the graphic art. In the other portions of the design we have only representations of concrete objects. The figure of the tortoise is an immense step in advance: it marks the beginning of symbolism. The tortoise is a pure ideogram, the picture of an object being taken as the conventional symbol of an abstract thought.

It is manifest that the introduction of symbolic ideograms renders possible a greatly extended development of the art of graphic representation. Schoolcraft, in his account of the Indian tribes, gives a considerable number of these conventional symbols. Thus a pipe stands for "peace," a vine for "friendship," a fowl with outstretched wings denotes "haste," a fire means a

"family circle," and concentric circles or suns represent "time." By the aid of the French missionaries this system of pictorial symbolism has been developed among the Mikmaks of Nova Scotia and New Brunswick to so great an extent that whole sentences can be ideographically expressed. A few years ago a religious work was printed at Vienna in the Mikmak language, in which no less than 5701 ideographic symbols are employed.

A further extension of the system of picture writing became possible when it was discovered that complex ideas could be conveyed by combinations of simple ideograms. Thus in the primitive Chinese writing we find a "wife" is denoted by the combination of the conventional pictures of a "woman" and a "broom," and the verb "to love" is expressed by the pictures of a "woman" and a "son." In the early Cuneiform writing precisely the same procedure was employed. The symbol for "prison" is a combination of the symbols for "house" and "darkness," while a "tear" is denoted by the signs for "eye" and "water." This device is familiar to the philologist, such a compound noun as "eye-water" being admissible in numerous languages.

It is plain that pure picture writing is absolutely independent of language. Such a record as that of the Leni Lenape chief could have been interpreted as well by a Huron as a Cree, by a French trapper from Canada, or by an English settler from Virginia. This,

however, ceases to be the case in the next stage of the development of writing, in which ideograms give birth to phonograms. From pictures which represent things or thoughts were derived pictures which represent sounds.

The form of conundrum called the *rebus* affords a familiar instance of the simplest kind of phonogram. In the *rebus* the picture of an object is taken to denote any word or part of a word which has the same sound as the name of the thing pictured.[1] If, for instance, like the ancient Egyptians, we were to adopt a circle with a central dot as our ordinary written symbol for the sun, this would be a pure ideogram. But if we were to go on, and, after the Egyptian or Chinese method, were to use the same symbol to express also the word "son," we should have a phonogram of that primitive type which has repeatedly served to bridge over the gap between picture ideograms and phonetic characters.

It is probable that the adoption of the important step by which the advance was made from ideograms to phonograms arose out of the necessity of expressing proper names. This is indicated by the Mexican picture writing, which at the time of the arrival of the Spaniards was just reaching the stage of the phono-

[1] As in the well known *rebus* in which the sentence "I saw a boy swallow a gooseberry" is represented by pictures of an eye, a saw, a boy, a swallow, a goose, and a berry.

graphic expression of the names of persons and places. Thus the name of the fourth Mexican monarch was Itzcoatl, or "Knife-Snake." In the Le Tellier Codex the name of this king is represented by obsidian knives, *itzli*, surrounding a serpent, *coatl*. This is mere picture writing, like the Accadian "eye-water," or the Chinese "broom-woman." But in the Vergara Codex the name of the same king is represented phonographically by a *rebus*. The first syllable *itz* is denoted ideographically as before by means of a weapon armed with blades of obsidian, *itzli*, but the remainder of the word is expressed, not by a snake, *coatl*, but by two phonograms, an earthen pot, *co*(*mitl*) and the sign of water *a*(*tl*).[1] This example proves that the Aztecs, at the time of the Spanish conquest, had taken the first step on the road to the invention of a system of phonographic writing. The necessity of being able to express proper names had brought them to the crucial point which separates ideograms from phonograms. Under the tuition of Spanish missionaries the Mexican ideograms were subsequently developed so as to be capable of expressing the sounds of a foreign idiom, as is shown by a Latin Pater-Noster wholly transcribed by means of pictorial phonograms.

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[1] See Tylor, *Early History of Mankind*, p. 93; Houghton, in *Trans. Soc. Biblical Archæology*, vi. p. 456; Lenormant, *L'Alphabet Phénicien*, p. 25; De Rosny, *Écritures Figuratives*, p. 17.

But without such foreign assistance another nation of Central America had advanced still further on the path which leads to Alphabetic writing. At Palenqué, the ruined capital of the Mayas of Yucatan, several inscriptions have been found written with phonetic signs, which are believed to have been derived from the Mexican Hieroglyphics; and three MSS.,[1] written in the same character, have fortunately been preserved. From the writings of Diego de Landa we obtain the key to this curious Maya writing. It appears that, in addition to a certain number of syllabic signs and a few ideograms, the Mayas employed twenty-seven characters which must be admitted to be alphabetic. The high state of civilization attained by this people is thus attested, not only by the ruins of their magnificent buildings, but by the invention of a system of writing actually superior in simplicity and convenience to that employed at the present day by the Chinese, or even by the great Assyrian nation at the epoch of its greatest power and glory. The systems of picture writing, which were invented and developed by the tribes of Central America, are however so obscure, and so little is really known about their history, that they must be regarded rather as literary curiosities than as affording suitable materials for enabling us to arrive at any

[1] The "Dresden Codex," the "Manuscript Troano," and the "Second Mexican MS.," in the National Library at Paris. Sayce, *Science of Language*, ii., p. 220.

general conclusions as to the nature of the early stages of the development of the graphic art.

§ 5. THE CHINESE CHARACTERS.

It is in the case of the Chinese characters that we find the most notable instance of a graphic system which has never succeeded in advancing beyond the most rudimentary stage of conventionalized picture writing. The early processes in the development of picture writing may therefore be studied to the best advantage in connexion with Chinese.

The complicated characters which fill the columns of a Chinese book seem to the uninitiated to present a mere hopeless maze of unintelligible puzzles. Recent investigations into the history of these characters throw unexpected light upon their origin and meaning. We possess a chronological series of authentic dated inscriptions which extend back to the time of the Shang Dynasty, and there are other inscriptions which are considerably older, but of less certain date. When, by the aid of the more ancient monuments, the modern Chinese characters are traced back to their earlier types, it becomes evident, as has been shown by de Rosny and Dr. Edkins,[1] that they are conventionalized forms, descended from rude pictures to which they now bear little or no resemblance. For example, taking one

[1] De Rosny, *Écritures Figuratives*, Paris, 1870; Edkins, *Introduction to the Study of the Chinese Characters*, London, 1876.

or two of the more simple characters, we find that the word *k'iuen*, a "dog," is denoted by the character 犬, and *mu* "wood" by 木. These two characters present a much closer resemblance to each other than either of them possesses to the object whose name it bears. But when these characters are traced back to their earlier forms the difficulty disappears. The character for *mu*, "wood," was originally written or , a form in which the representation of a tree, with its branches, trunk, and roots, can be plainly recognized. In the other case we find the character for *k'iuen*, a "dog," takes the forms , , and , in which it is not difficult to perceive a rude outline intended for the picture of a dog. The earlier forms of the ideogram make it easy to recognize in the modern character the particular strokes which correspond to the body, legs, tail, head, and ears in the primitive picture. Even in the contracted form , which is used in compound characters, it is not impossible to detect the original signification of the several strokes.

The foregoing are comparatively simple cases. Many characters which have a more complicated appearance can also be referred with equal certainty to their primitive picture forms. The modern square or model character 馬, *ma*, signifies a "horse." Every stroke of this character can be recognized in the ancient form , which belongs to the Lieu-wen style of writing, the date of which is about 800 B.C. Even at this remote date the resemblance to the horse is by no

means conspicuous; but if we go back to the still more ancient Ku-wen writing, the original pictorial significance of each of the several strokes becomes manifest, and the primitive pictures , and enable us to discover in the modern character the particular strokes by which the head, mane, legs and tail of the animal were originally represented.

The next step is to resolve the compound characters into the combinations of pictures of which they are composed. Thus a "hermit" is denoted by the two characters 仙, which in their ancient forms are easily seen to be pictures intended to represent a "man" on a "mountain."

A further extension of the system of graphic representation was effected by the aid of the principle of symbolism. The pictures of things were employed as the symbols of abstract ideas. Thus "safe" is expressed by the picture of a "hand" stretching down to help a "woman," and "danger" by a "man" on a "cliff." The "sun" seen under a "tree" means "dark," while the "sun" over a "tree," or the "sun" and "moon" side by side, mean "light." To "assist" a person demands deeds as well as words, and is expressed by pictures of a "mouth" and a "hand." Two hands joined together stand for a "friend," and a picture of a knife, which signifies to "divide," in conjunction with the symbol for money, signifies "poor." In this way most of the signs for the 40,000 words which are

said to be contained in the Chinese Dictionaries may ultimately be resolved into conventionalized pictures. It would perhaps be more correct to call them symbols rather than pictures, as in their modern forms very few of them manifest any appreciable resemblance to the original pictures from which they have descended.

In examining such a system of writing we are as much amazed at its excessive cumbrousness as at its extreme ingenuity. It is quite as remarkable that the Chinese should have succeeded in elaborating a vast system of picture writing of such immense difficulty, as that they should altogether have failed in discovering any simpler syllabic or alphabetic device.

In fact, it is owing to the unique character of the language that the invention of the Chinese writing became possible. The Chinese language is a language of roots; it has no terminations to denote number, case, tense, mood, or person; the same word, without change of form, may be used as a noun, a verb, an adjective, an adverb, or a particle;[1] grammatical relations are denoted only by position; and no word consists of more than one syllable. The number of the distinct monosyllabic combinations of consonant and vowel amount in the Chinese language to 450. By means of the four "tones," or variations of accent, it becomes possible to utter as many as 1203 distinguishable

[1] Thus the syllable *ta*, according to its position in the sentence, may mean either great, greatness, to increase, much, or very.

monosyllabic words. But it is manifest that the needs of a people so advanced in civilization as the Chinese cannot be satisfied by means of so limited a vocabulary. Hence there are necessarily in Chinese a large number of homophones; that is, the same articulation has to do duty for several wholly different words. Most of the Chinese monosyllables have therefore more than one meaning.[1] In the five spoken dialects (all of which differ considerably from the conventional language which is employed in books) confusion is avoided by the use of gesture and "tone;" in the written speech the necessity for the adoption of some corresponding expedient is manifest. When such cases of homophony occur in our own language the difficulty is frequently solved for us by the fortunate accident of the anomalies of our historical spelling, which, whatever its demerits, is not without compensating advantages. For instance, we have in English the four homophones *rite*, *write*, *right*, and *wright*. By the aid of the variant spelling a child readily learns that these homophones are really four different words which happen to be pronounced alike. The advantages of a variant spelling are perhaps more clearly seen in the case of a foreign language, such as French, in which the reader welcomes the aid of the variant

[1] For instance, the sound *yu* may mean either me, agree, rejoice, measure, stupid, or black ox; and *lu* may be either forge, vehicle, precious stone, dew, way, or turn aside.

spelling of such homophones as *sang*, *cent*, *sans*, and *s'en*. There would be a very appreciable inconvenience if English and French were either written ideographically like Chinese, or phonetically according to the schemes of certain spelling reformers, instead of by means of an elastic alphabet. Much more considerable would be the ambiguities in Chinese, where nearly every phonetic symbol has to represent a considerable number of homophonic words. To meet this difficulty a device has been adopted, which is worthy of note as being almost exactly the same as the expedient by which the same difficulty, which must be encountered in every ideographic system of writing, was solved in the Egyptian Hieroglyphics and in the Assyrian Cuneiform.

To denote graphically any Chinese word two symbols are employed in combination. One of these is a phonogram, which conveys the sound of the word, the other is an ideogram determining which of all the words having this sound is the one intended to be expressed. These explanatory ideograms, which in Egyptian and Cuneiform are called "determinatives," in Chinese go by the name of "keys," "radicals," or "primitives"—terms which are somewhat misleading, as the Chinese name, *wen*, means rather "classes."

An example will make more clear the way in which these explanatory ideograms are employed. The sound *pa*, for instance, has in Chinese eight distinct significations, that is there are eight different words

which are thus pronounced. One of the phonograms which expresses the sound *pa* is 巴, the original form of which, 𠂤, is apparently the picture of the "tail" of some animal. In conjunction with the key of "plants" the phonogram denotes a "banana tree," with the key of "iron" it signifies a "war-chariot," with the key of "sickness" it means a "scar," with the key of "mouth" it stands for a "cry," and so on with the four other meanings which the sound may have.

To return to the case of the four English homophonic words already cited, the Chinese plan is much as if we were to take the picture of a pen as a phonogram to denote the sound *write*. Together with the picture of a church as a key or determinative this picture of a pen might stand for "rite," with the key of a book it might signify "write," while with the keys of a straight line and a hammer it would denote "right" and "wright."

Compared with the ease and simplicity of alphabetic writing the complexity and difficulty of the Chinese method is obvious. It seems moreover to be unavoidable. In the Egyptian and Cuneiform systems it was also found necessary, in order to overcome the difficulty of expressing homophones without confusion, to adopt the very same expedient; the phonetic signs were explained and interpreted by means of determinatives.

The Egyptians employed between 300 and 400 phonetic signs, which were interpreted by about 94 generic determinatives, while for the Assyrian Cunei-

form 522 phonetics and 27 determinatives are catalogued in Prof. Sayce's Grammar. Both classes of signs are more numerous in Chinese. The phonetic characters have been reckoned by Dr. Marshman at 3867, and the ideographic signs are supposed to amount to nearly 2000. Many of these however are rare, or fallen out of use, and it may be said that only 1144 phonetic signs and 214 ideographic "keys" are practically required. By means of these 1358 conventionalized pictures, taken in groups, two and two together, any one of the forty thousand words in the Chinese language can be written down without ambiguity.

It is plain that to acquire an exhaustive knowledge of such a cumbrous system of writing would be a very formidable task. But even to obtain such an acquaintance with it as to be able to write a common business letter, or to read an ordinary book, it is necessary for a Chinese student to commit to memory some 6000 or 7000 of these groups of characters. This by itself constitutes a serious tax upon the memory, and the tax on the faculties of attention and accuracy is even greater, for many of the characters being necessarily very much alike, it is most difficult to distinguish them without mistake, as will be seen by the inspection of the columns of any Chinese book. The result is that at the age of twenty-five a diligent Chinese student has barely acquired the same amount of facility in reading and writing which is usually attained by a child in an English village school at the age of ten. It may fairly

be said that with the Chinese method it takes twenty years instead of five to learn to read and write. About 6000 words are found in the authorized version of the English Bible, in an ordinary English Dictionary there are about 43,000, while a Dictionary which includes scientific terms may probably contain no less than 100,000 words. By learning how to form twenty-six very simple characters an English child acquires the power of writing down any ordinary English words. But in China it would be necessary for him to learn to delineate from memory the difficult forms of more than a thousand distinct characters, and also to remember the arbitrary meanings of something like 6000 groups of signs. It is evident that there would be a considerable number of persons who would not possess the needful accuracy of hand and brain, not to speak of the leisure and patience, necessary for learning to read and write on such a system. Hence in countries which have not had the good fortune to be in possession of an alphabet, the art of writing, demanding so many years for its acquirement, has necessarily become a rare accomplishment, confined to a learned caste. Among the Egyptians and Assyrians, as well as among the Chinese, to be a "scribe" has constituted a profession by itself.

§ 6. THE JAPANESE SYLLABARIES.

SYLLABISM, the next stage in the progress of writing, finds its best illustration in the development of the Japanese writing out of the Chinese.

The monosyllabic nature of the language of the Chinese enabled them to elaborate the *rebus* into a graphic system so complete as to make it possible to dispense with any advance towards an alphabetic method. In a monosyllabic language the interval which ordinarily separates the *rebus* from syllabic writing does not exist. Hence it was possible for the Chinese system of verbal phonograms to remain essentially unchanged for a period which their tradition fixes at upwards of 4000 years. But in Japan the conditions of the problem were wholly different. About the 3rd century A.D., at the time of the great Eastern extension of the Buddhist faith, the Japanese came into contact with the civilization of China, and obtained a knowledge of the characters in which the Chinese literature was written. The Japanese language being polysyllabic, the Chinese characters, which are verbal phonograms, could only be used for the expression of the polysyllabic Japanese words by being treated as syllabic signs. The advance to syllabism was thus inevitable. A number of characters sufficient to constitute a syllabary having been selected from the numerous Chinese phonograms, it was found that the whole apparatus of "keys" might be rejected, being no longer indispensable to the reader. By these two changes an almost incredible simplification of the Chinese writing was effected. But though syllabism is a great advance on a system of verbal phonograms, yet it is necessarily somewhat cumbrous, owing to the

considerable number of characters which are required. In Amharic, for instance, which is printed syllabically, there are 33 consonantal sounds, each of which may combine with any of the seven vowels. Hence, to print a page of an Amharic book 7×33 or 231 different types are required, instead of the 40 types which would suffice on an alphabetic method. In Japanese this difficulty is less formidable than in many other languages, owing to the simplicity of the phonetic system, which possesses only five vowel sounds and the fifteen consonantal sounds, *r*, *f*, *b*, *p*, *n*, *t*, *d*, *ts*, *w*, *k*, *g*, *y*, *s*, *z*, *m*. There are therefore only 75 possible syllabic combinations of a consonant followed by a vowel. Several of these potential combinations do not actually occur in the language, and hence it is possible, with somewhat less than fifty distinct syllabic signs, to write down any Japanese word.

The Japanese have two syllabaries, both of which were independently derived from the Chinese at some time before the end of the 9th century A.D. The Hirakana syllabary was derived from a cursive form of the Chinese writing called the Tsau or "grass" character. In the Hirakana syllabary there are about 300 signs, a large number of which are either variants or homophones. The Katakana syllabary is more simple. It was obtained from the Kyai or "model" type of the Chinese character, and comprises only a single sign, written more or less cursively, for each of the forty-seven syllabic sounds in the Japanese language.

The Japanese word *kata* means "side," one side or part of the Chinese character being usually taken to represent the whole. In this way, the outline of the character being in most cases considerably simplified, and all determinatives, variants and homophones being omitted, the Japanese have provided themselves with one of the best syllabaries which has ever been constructed.

Here, however, the development has stopped short. The fact that during more than a thousand years it should never have occurred to a people so ingenious and inventive as the Japanese to develope their syllabary into an alphabet, may suffice to show that the discovery of the alphabetic principle of writing is not such an easy or obvious a matter as might be supposed. It is true that most of the independent systems of writing, as the Mexican, the cuneiform and the Egyptian, ultimately reached the alphabetic stage, and it has frequently been asserted that the Chinese forms no exception to the rule, the alphabet of Corea being, it is alleged, only a development of the Japanese Katakana. The forms however, and more especially the order of the letters of the Corean alphabet, prove that it must be classed, with the Pali or Buddhist alphabets, as one of the outlying members of the Indian family of alphabets. The development of the Chinese and Japanese writing must therefore be held to have stopped short at the syllabic stage. Now, however, that Japan has been brought into contact with

Western civilization, the convenience and simplicity of the Roman alphabet is being gradually recognized, and a movement is on foot to substitute it for the native syllabary. If this attempt succeeds, as may not improbably be the case, we shall have under our own eyes an illustration of the process by which the Egyptian hieroglyphics and the Babylonian cuneiform were replaced, some two thousand years ago, by characters ultimately derived from the great Semitic alphabet.[1]

A few examples of the way in which the Japanese syllabaries were constructed may here be given.

In the Hiŕakana syllabary the sign for the syllable *tsi* is ち, and in the Katakana it is チ, which is cursively written 𠂉. These symbols were derived from the Chinese character 子 *si*, a "son," the ancient form being obviously intended for the picture of a new-born child.

We have already seen that the Chinese character 木 represents a "tree," with its trunk, roots, and branches. This character, by the addition of a bar to indicate the topmost bough of the tree, becomes 末, and then stands for the Chinese word *mo*, which

[1] This process is now going on in Annam, where a modification of the Roman alphabet is used by the French missionaries to replace the local Annamese syllabary, whose history is similar to that of Japan, having been derived from the Chinese writing by the selection and adaptation of a certain number of characters which are used phonetically.

means the "end" of a thing. In Japanese this sign becomes in the Hirakana, and in the Katakana, with the syllabic value of *ma*.

As another illustration, we may take the syllable *ro*, which in the Hirakana is represented by , and in the Katakana by . A Japanese *r* answers to a Chinese *l*, and hence the origin of the Japanese signs is to be referred to the Chinese character 呂 *lü*, "vertebræ," which is shown by the ancient form to be intended for a picture of two joints of the spine.

In this manner it would be possible to go through the signs of the two Japanese syllabaries, and trace back the whole of the symbols to the original picture ideograms of the ancient Chinese writing. We might, for example, investigate the successive steps by which the Japanese character *no* is derived from a picture of a woman's breasts , while *se* resolves itself into an ideographic symbol for "age." We might show that *mo* was once a representation of "hair," while *nu* originally denoted a "slave," literally a "handmaiden," being composed, in its primitive form, of the pictures of a "woman" and a "hand." These transformations are not only curious in themselves, but will be found useful as illustrations of the parallel processes by which the picture writing of the primitive populations of Babylonia gave birth to the various cuneiform syllabaries, and by which our own alphabet was itself developed out of the hieroglyphic pictures of ancient Egypt.

§ 7. THE CUNEIFORM.

In the creation of the Japanese and Annamese syllabaries out of the Chinese ideograms we have instances of a very general law which governs the development of graphic systems. During a period of four thousand years the Chinese, left to themselves, were unable to advance beyond ideographic writing. But this important step was, as we have seen, readily accomplished when the Chinese writing had to be adapted to a language of another type. As a rule it is found that the advance from one stage in the development of writing to the next is only attained by the transmission of a graphic system from one nation to another. The transmission of the Aztec Hieroglyphs to the Mayas of Yucatan, of the Egyptian Hieroglyphs to the Semites, and the thrice repeated transmission of the Semitic alphabet to Aryan nations —to the Greeks, to the Persians, and to the Indians— are instances in point. Each of these transmissions was accompanied by important developments in the art of writing. But the action of this general law is perhaps best exhibited in the case of the repeated transmissions of the cuneiform writing. It was invented by the Accadians, a Turanian people; from them it was transmitted to the Semitic Assyrians and Babylonians; while out of the Semitic cuneiform arose on the one hand the Turanian Proto-Medic

syllabary, and on the other the cuneiform alphabet of the Aryan Persians. The history of the cuneiform writing also illustrates with great completeness the successive stages through which writing tends to pass; the primitive picture ideograms developing themselves, through verbal phonograms, into syllabic signs, until finally the alphabetic stage is reached.

The most primitive monuments of the cuneiform writing consist of inscribed bricks from the ruins of the cities of Mugheir, Warka, and Senkereh, in Lower Babylonia. This writing, which goes by the name of the "Linear Babylonian," consists of picture ideograms in which it is not difficult to detect the outlines of the objects which are meant to be represented. The material used being tablets of the soft clay which was abundant in Babylonia, at a very early period these outline pictures came to be replaced, as a matter of graphic convenience, by groups of wedge-shaped strokes, which are the forms most easily imprinted by a style upon unbaked clay. In these conventional ideograms, which go by the name of the "Archaic Babylonian Cuneiform," the pictorial significance, though not so entirely lost as in the later Assyrian and Babylonian forms, is more difficult to recognize than is the case with other kinds of ideographic writing, such as the Mexican or the Egyptian, where a different material was used. But by aid of the primitive outline pictures of the linear Babylonian the original significance of many of the cuneiform

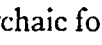
groups can be detected with a fair approach to certainty.

A few instances may be given of the way in which the cuneiform characters may be thus traced back, by means of the older forms, to the original picture ideograms.[1] We may begin with the Assyrian character , *alpu*, which means an "ox." The Assyrian form was derived from the Hieratic Babylonian , which in the linear Babylonian is . If this picture be partly turned round it is at once recognized as the profile of the head and horns of an ox, looked at from the front, . It may be noted that this primitive picture does not differ very materially from the character , in which the Phœnicians recognized the likeness of the head of the "ox," *aleph* (the same word as *alpu*), which has given us the name of our *alpha-bet.*

The ideogram of the "fish" is as easy to trace as that of the "ox." In the Assyrian cuneiform we find the character (*kha*), a "fish." The resemblance to the object has almost entirely disappeared, but it can be recognized when we go back to the archaic Babylonian, in which the form of the character is . A still older form is , while in the linear Babylonian we have the form , a figure in

[1] These instances are chiefly taken from Mr. Houghton's paper in the *Transactions of the Society of Biblical Archæology*, vol. vi., pp. 454—483.

which the head, body, tail, and fins of the fish are unmistakeably pourtrayed.

It is often possible to detect the mode in which compound, or, as we may call them, agglutinated characters, arose from the combination of simpler forms. The ideogram used to denote the city of Nineveh was  . The archaic form of this character is , which proves that it was compounded of the ideographic picture of a "house," enclosing the ideogram of the "fish." We have here a curious fragment of primæval history, showing us that imperial Nineveh was at first, as its name implies,[1] merely a collection of huts of fishermen.

The graphic system which was thus invented by the primitive Turanian inhabitants of Babylonia was adopted by their Semitic conquerors, who took it with them to Assyria, where it underwent considerable modifications. Even among the Accadians the primitive ideograms had come to be used as phonograms, a device which was greatly extended by the Semites, who created a huge syllabary out of the Accadian characters.

In the cuneiform the transition from ideograms to phonograms had to be effected in a way somewhat different from that which was possible in China. The Chinese being a monosyllabic language,

[1] The first syllable is identical with *nun*, "fish," the name of the fourteenth letter of the Semitic alphabet.

the primitive phonograms were necessarily syllabic signs, and the limited number of possible monosyllabic articulations could be expressed by about 1200 phonetic symbols. But the languages spoken by the inventors of the cuneiform writing being polysyllabic, a new device became necessary, as otherwise the number of separate phonograms must have been nearly equal to the actual number of words, so that many thousands of distinct characters would have had to be invented and remembered. The obvious remedy for this difficulty was Syllabism. But a polysyllabic language did not lend itself so readily as the Chinese to this solution. According to Halévy the difficulty was overcome by the adoption of the powerful principle of Acrology. He contends that a primitive ideographic picture having been taken as a phonogram to denote the name of an object, the symbol was used "acrologically," to express simply the initial syllable of the word. It is generally supposed, however, that certain dissyllabic Accadian words were simply worn down by phonetic decay into monosyllables, which became the phonetic values of the characters. Thus the common character , which denotes "the sky," is a simplified form of , which was the ideographic picture of a "star." The foundation of the Proto-Babylonian religion being planetary worship, the character was employed as a symbolic ideogram to denote "God." The primitive Accadian word was *ana*, which was afterwards contracted into *an*. Hence

the character was used as an ideogram to signify the sky, also as the determinative prefix to denote deity, and was ultimately employed as a phonogram to express simply the articulation *an*.

The invention of the syllabic method, however it may have been brought about, was an almost necessary step in the progress towards alphabetic writing. It solved the problem of expressing the words of a polysyllabic language by means of phonetic signs, and thus, as we shall presently see, it served in Egypt, as well as in Babylonia, as the means by which the most formidable difficulties of phonetic writing were overcome.

A syllabary having been thus constructed out of the primitive phonograms, the next step was to combine the syllabic characters, as in Mexico and Japan, so as to express polysyllabic words. Thus the syllabic sign *nap*, "light," was combined with the sign for *sat*, "mountain," to give the compound phonogram , *nap-sat*, "soul."

In the Assyrian cuneiform the Proto-Babylonian characters were not only employed phonographically to denote the sound of the original Accadian word, but also ideographically, to express any of the Semitic words by which the Accadian word might be translated. It is evident that a very high degree of complexity would be thus produced.

As an illustration, we may take the cuneiform character , which was originally an ideographic

picture of an "ear," as is seen when it is traced back to the primitive form . An "ear" in Accadian is *pi*. But the sound *pi* denoted in Accadian a "drop of water" as well as an "ear," and hence the cuneiform symbol was used both as a phonogram to signify a "drop," and as an ideogram to denote an "ear." When the Accadian syllabary was taken over by the Semites, the character retained its phonetic value of *pi*, and was also used as the equivalent of the two Semitic words *uznu* an "ear," and *giltanu*, a "drop of water."

In like manner the Accadian character *su*, "foot," was originally the picture of a leg, as is indicated by the older forms and . The character was then used as a phonogram to express the sound *su*, which in Accadian meant "overthrow" as well as "foot." In the Semitic cuneiform the character not only possesses the old syllabic value *su*, but is also used as the equivalent of the Semitic words *sepu*, a "foot," and *sakhpu*, "overthrow." In some instances the confusion is far greater. Thus the character , which was originally an ideographic picture of the "sun," has nine phonetic values, and may also represent ideographically fourteen separate Semitic words. When therefore the character occurs in an Assyrian inscription there are no less than twenty-three different ways in which it may be rendered.

From these instances it will be seen how great an element of ambiguity was introduced by the polyphony which arose from the adaptation of a Turanian sylla-

bary to a Semitic language. Hence, as in China, the employment of determinative ideograms side by side with the syllabic phonograms became indispensable, in order to aid the reader in ascertaining the particular value to be assigned to each of the polyphonic characters.

A further complication arose when the Assyrian characters were adapted to a third language of an entirely different structure. About the ninth century B.C. the Assyrian cuneiform became known to the Alarodian tribes who dwelt in the neighbourhood of Lake Van. This Vannic or Armenian cuneiform has hitherto been only imperfectly deciphered. A certain number of characters seem to have been taken over from the Assyrian syllabary, some of which were used as syllabics and others as the symbols of Alarodian words of similar signification, but of totally different sound. The device must have been much the same as that which we employ when we use alphabetic symbols derived from foreign languages as the graphic equivalents of English words, reading such signs as *lbs.*, *e.g.*, *s.v.p.*, as if they stood for such English expressions as "pounds," "for instance," "if you please."

The transmissions of the cuneiform writing which have been hitherto considered, resulted only in increased complexity. The primitive Accadian writing was comparatively easy and simple, the obscurity of the Assyrian cuneiform, with its cumbrous apparatus

of variants, homophones, polyphones, ideograms, and determinatives, being mainly attributable to the polyphony arising from the clumsy adaption of Turanian writing to the needs of Semitic speech. The Alarodian adaptation still further increased the difficulty.

Other transmissions of the cuneiform writing exhibit a directly opposite result. When in the 8th century B.C. the Proto-Medic tribes, who spoke an agglutinative language of the Ural-Altaic class, borrowed from their Semitic neighbours the elements of a graphic system, they were able to effect a simplification somewhat of the same nature as that which took place when the Japanese syllabary was constructed out of the Chinese ideograms. By discarding numerous phonograms and ideograms, and by assigning a single syllabic value to the characters which were retained, the Scythic tribes of Media were able to dispense with more than 400 of the symbols used in the Assyrian cuneiform, so as to reduce it to a comparatively simple and certain syllabary of 96 characters. In this manner the ambiguities of the Assyrian writing were so far removed that it became possible to do away with the whole apparatus of determinative ideograms, with the exception of about half a dozen signs, which were employed, not altogether without advantage, to distinguish generically certain classes of words which frequently recur, such as *king*, *god*, *month*, *man*, *road*, *water*, *animal*. This amounts to little more than the device which we ourselves find convenient, when we use

initial capitals to distinguish proper names, when we print words from foreign languages in italics, or mark quotations by means of inverted commas.

The relative simplicity of the Proto-Medic syllabary, as compared with the Assyrian cuneiform from which it was derived, may be exhibited by means of one or two examples. Thus the Proto-Babylonian ideographic picture of an ear, which has already been cited, had acquired in the Assyrian cuneiform no less than seven phonetic and ideographic values. But in the Proto-Medic syllabary it appears in a simplified form, retaining the single primitive syllabic value of *pi*. In like manner the ancient ideographic picture of the sun , which in Assyrian could be rendered in no less than twenty-three different ways, retains in the Proto-Medic syllabary one only of its values, *ut*, with the form . So also the Accadian character *pa*, which signified the "royal sceptre," and was originally the picture of the branch of a tree, became in Proto-Medic, with the single value *pa* instead of the eight values which it might have in the Assyrian cuneiform.

At a still earlier period the Elamites, who, like the Proto-Medes, spoke an agglutinative language, compiled for themselves a simple syllabary out of existing materials. We possess very scanty remains of the Elamite cuneiform, but it would seem that a limited number of syllabic signs were selected from the

Babylonian cuneiform, ideograms and determinatives being almost entirely rejected.

Whether the Cypriote syllabary was derived, according to the hypothesis of Dr. Deecke, from the Assyrian cuneiform, or, as Professor Sayce supposes, from the Hittite Hieroglyphics, must still be regarded as an unsettled question. The account of the Cypriote syllabary, from which several letters in the Lycian alphabet were derived, must be reserved till the time comes for describing the alphabets of Asia Minor. But the Cypriote syllabary is of great interest, inasmuch as it shows that if the Greeks had not obtained their alphabet from the Phœnicians they would before long have succeeded in developing from a wholly different source an alphabet of nearly equal excellence, which would in all probability have ultimately become the parent of the modern alphabets of Western Europe.

The radical nature of the vowel sounds, together with the delicate inflexional machinery of the Aryan languages, must be reckoned among the chief reasons why the final stages of alphabetic development should in so many cases have been effected by Aryan nations. So it was that while the Ionian Greeks were bringing to perfection the Phœnician alphabet, the Dorians of Cyprus were in process of creating an alphabet out of the ancient syllabary of Asia Minor. At a later time the Zend alphabet, with its fifteen vowel signs, was evolved by the Persians out of the vowelless North Semitic alphabet, while the South

Semitic, passing into the possession of the Aryan races of Northern India, became the parent of the most perfect scientific alphabet which has ever been invented.

Hence it can be no matter of surprise to find that the nearest approach to a real alphabet which was attained by the cuneiform writing was effected when, in the time of Darius, it passed from the Semitic and Turanian nations of Western Asia into the hands of the Aryan Persians.

It must, however, be acknowledged that the idea of alphabetism may not improbably have been suggested to the Persians by their acquaintance with the Phœnician alphabet, which, as early as the 8th century B.C., was used in the valley of the Euphrates concurrently with the cuneiform writing. The somewhat artificial plan on which the Persian cuneiform alphabet was constructed favours this belief. According to the very probable explanation given by Oppert, a certain number of cuneiform characters were taken from the Proto-Medic syllabary, their forms were regularized and simplified, and their ideographic meanings having been translated into Persian, the first letter of the Persian word thus obtained was assumed, on the acrologic principle, as the new alphabetic value to be assigned to the modified cuneiform character.

The Persian cuneiform, though essentially alphabetic in its principle, yet just stops short of being a pure alphabet. It retains vestiges—survivals we may

call them—of the syllabic writing out of which it sprang. Some of the symbols, such as those for *p*, *b*, or *f*, represent pure consonants, and can be employed indifferently in conjunction with any one of the three Persian vowel signs; but in the case of some of the consonantal sounds, such as *k* or *m*, the character appears to have possessed a sort of inherent vowel sound, since the symbol which is employed varies in accordance with the nature of the vowel which is to follow. These curious survivals from a prior syllabic stage needlessly multiply the Persian alphabetic symbols: eleven of them might have been discarded without disadvantage. If, after a brief existence of about a century, the Persian cuneiform had not been superseded by the Semitic alphabet, it is probable that the thirty-six symbols would have been ultimately reduced to a pure alphabet of twenty-five characters.

In addition to these vestiges of a prior syllabism, a few ideographic characters are retained, as in the Proto-Medic syllabary, to designate certain frequently recurring words, such as *king*, *country*, *son*, *name*, and *Persian*.

An example or two will show better than any explanation the ingenious manner in which the Persian alphabet was constructed out of existing materials. The origin of the characters used for *m* (*a*) and *m* (*i*) will serve as convenient illustrations. In the archaic Babylonian we find the compound ideogram standing for the two words *nun* and *zil*, which mean

"lord" or "master." The character seems originally to have formed a representation of a sceptre, the first portion being the picture of the branch of a tree, and the second of a hand, the vertical wedge denoting the wrist, and the horizontal strokes the thumb and fingers. In the Assyrian cuneiform only the first part of the symbol is retained, and we have the character standing for the Semitic word *rubu*, "prince," or "master," allied to *rabu*, "great," which we recognize in the Assyrian name Rabshakeh and the Hebrew Rabbi. The Persian equivalent is *mathista*, an Indo-European word which is familiar to us under the forms μέγιστος, *magister*, and *master*. Hence we see the reason why the Persian character came to be selected acrologically for the initial sound of *mathista*, and stands in the alphabet for *m* when followed by *a*.

When, however, *m* is followed by *i*, the Persian character is . This seems to have been obtained acrologically from the Persian *mizda*, an Aryan word cognate with the Greek μισθός and the English *meed*, and which is equivalent to the Proto-Babylonian *di*, a "reward" or "recompense." The primitive meaning of *di* seems to have been "ending" or "rest," and the symbol may be traced back to the linear Babylonian form , which is an ideographic picture of the setting sun. The first part of the Persian letter *m* (*i*) is therefore seen to be the outline of the sun, while the two horizontal wedges represent parallel bars of cloud near the horizon.

Two more instances may be added. In the linear Babylonian the ideogram ◇, which forms a portion of the last symbol, is a picture intended to represent the "sun." In the archaic Babylonian, which was written with wedges instead of lines, the symbol becomes ⟨⟩, and is used as a phonogram for the Turanian word *ut*, "sun." In the Assyrian Cuneiform, as we have already seen, the character is written 𒌓, with the wedges rearranged for greater convenience in writing, and is used phonographically to denote the syllable *ut*, and also as an ideogram for the Semitic word *samsu*, the "sun," which appears in the name of Samson. In the Proto-Medic syllabary the symbol becomes 𒁍 with the sole syllabic value *ut*. The Persian word *kuru* is the translation of the Turanian and Semitic words. Hence in the Persian alphabet the character ⟨𒁍 stands for the letter *k* when followed by *u*.

Another curious instance is afforded by the Persian ⟨𒁹, *g(u)*, the initial sound of the word *guzaka*, which is the Persian equivalent of ⟨𒁹, which stands for the Assyrian *sepu* and the Accadian *ner*, a "foot." The Assyrian character may be connected by means of a series of intermediate forms with the linear Babylonian ideogram which shows that the Persian letter is the picture of a foot, the double wedge to the left standing for the ancle, the two small horizontal wedges being the

sandals, while the two longer horizontal wedges represent respectively the instep and the sole.

These instances are given not only as examples of the curious remoteness of the primitive ideas out of which the characters of the Persian alphabet were acrologically evolved, but because they help to establish a general law of great importance. The chief lesson to be learned is the universal prevalence of the law of Evolution. In dealing with the history of writing we are met by the same phenomenon which is so conspicuous in the history of language, namely, the fact that there is no such thing as arbitrary invention. The written symbols of speech are subject to the laws of evolution as absolutely as plants or animals, or the spoken words of speech. Thus the processes by which the Persian alphabetic signs were evolved from existing characters, themselves the remote descendants of primitive pictures, may help us to understand the no less wonderful series of evolutions by which the letters of our own alphabet have descended from the primitive hieroglyphic pictures of the Egyptian monuments.

The great trilingual Behistun inscription exhibits in a very striking manner the three chief stages of the development of the cuneiform writing, in its gradual progress from ideograms and phonograms, through syllabism, to an alphabetic system. The three columns of this inscription contain three versions of the famous historical edict of Darius; in one the

language is Aryan, in another Turanian, in the third it is Semitic. The third column contains a version written in the cumbrous Semitic cuneiform, with its 500 symbols — ideograms, phonograms, and homophones. Side by side with this, there appears in the second column the Proto-Medic translation, written in a syllabary of ninety-six pure syllabic signs, accompanied by seven surviving ideograms, while the Persian version in the first column exhibits a graphic system limited to thirty-six alphabetic signs, four only of the primitive ideograms being retained.

§ 8. THE EGYPTIAN HIEROGLYPHICS.

One other primitive system of writing, more ancient and more important than any of the rest, still remains to be described.

The Proto-Babylonian cuneiform can be carried back at least as far as the 27th century B.C.,[1] while Chinese legend doubtfully claims an almost equal antiquity for the first rude beginnings of the Chinese picture ideograms; there are, however, still in existence not a few Egyptian records to which must be assigned a date more ancient by some fifteen or even twenty centuries.

[1] This is the usual computation of the date to be assigned to the texts of Lig-bagas, King of Ur. Prof. Sayce considers that the oldest Accadian inscriptions may be as early as 3000 B.C.—*Science of Language*, ii. p. 321.

It is indeed difficult fully to realize the immense antiquity and the unchanging stability of the Egyptian Hieroglyphic writing. It is exhibited in its supreme perfection on the great monuments of the eighteenth and nineteenth dynasties, which are themselves older than the Hebrew Exodus. But even at that remote period, some thirty-five centuries ago, the Hieroglyphic writing was already a venerable system of vast antiquity. We may go back beyond the Exodus for a further period of six-and-twenty centuries, and even then, on the monuments of the great pyramid builders of the fourth dynasty we find Hieroglyphic records inscribed in a character identical in all essential respects with that used in the inscriptions written in the reigns of Thothmes and Rameses. It is even possible to go back for another 500 years, when we come at last to the very earliest extant inscription in the world. This venerable record is a tablet now in the Ashmolean Museum at Oxford, which was erected by Sent, a king of the second dynasty, to the memory of Shera, who appears to have been his grandson. According to the chronological scheme of M. Mariette, King Sent must have have lived about the year 4700 B.C.[1] But, as will presently be shown, this very inscription, the oldest written record in existence, affords conclusive proof that even at that distant date of some 60 or 70 centuries, the Hieroglyphic writing

[1] According to Brugsch, about 4000 B.C.

was already an extremely ancient graphic system, with long ages of previous development stretching out behind it into a distant past of almost inconceivable remoteness.

The immense antiquity of the time at which the Egyptian Hieroglyphic writing is found to have already assumed a definite and conventional form renders it highly improbable that any monuments will ever be recovered which may actually exhibit it to us in the primitive stages of its formation. But during the long period of four or five thousand years over which the Hieroglyphic records extend—from the time of King Sent down to the reign of Domitian, or even of Trajan—the Hieroglyphic writing continues to exhibit such abundant survivals from the earlier and ruder forms of graphic expression, that by aid of the analogies derived from the history of the Cuneiform and Chinese writing, it becomes possible to determine with considerable certainty the way in which it originated, and the methods by which it must have been developed.

It is plain that the Egyptian Hieroglyphics, like every other primitive mode of writing, commenced with picture ideograms, many of which continued to be used to the very last. Thus the common symbol ⊙ is manifestly a pictorial ideogram used to denote the "sun." Abstract ideas, which could not be thus directly represented, were expressed, as in China, by means of symbolical pictures. The idea of "thirst"

was represented by the picture of a calf running towards water, "power" , by a brandished whip, and "battle" , by two arms, one holding a shield and the other a javelin.

The next stage of the development must have been the same as that which has been traced in the case of the cuneiform writing. The primitive ideographic signs must have given birth to verbal phonograms, and then, by the introduction of the principle of Acrology, these verbal phonograms came to be used as syllabic signs.

An example will illustrate the way in which syllabic phonograms were developed out of the primitive picture ideograms. The picture of a "lute" was used symbolically by the Egyptian scribes to denote "excellence." It then came to stand as a phonogram to express the word *nefer*, "good." But in the Egyptian language this sound represented two homophonic words, *nefer* "good," and *nefer* "as far as." Hence we find that the character may be used as a pictorial ideogram to represent a lute, and as a symbolic ideogram to mean excellence; then as a phonogram for the preposition *nefer*, and lastly as a syllabic sign to denote *ne*, the first syllable of the word *nefer*.

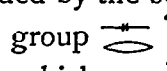
The problem of phonetic denotation having thus been solved, these syllabic signs were combined so as to form compound phonograms on the principle of the *rebus*. In an inscription of Ptolemy XV., at Edfu, we find an amusing instance of a compound phonogram,

in which it seems not impossible to detect a faint flavour of ancient Egyptian humour. The name of *lapis lazuli* was *khesteb*. Now the word *khesf* meant to "stop," and the syllable *teb* denoted a "pig." Hence the *rebus* "stop-pig" was invented to express graphically the name of *lapis lazuli*, which is figured by the picture of a man stopping a pig by pulling at its tail.

But it would almost necessarily happen in Egyptian, as in the cuneiform, that many symbols would be polyphonic. Thus "giving" is represented by the picture of an outstretched arm with a loaf as a symbolic ideogram. Now there are two Egyptian words, *tu* and *ma*, both of which signify "gift." Hence the pictorial representation of "gift" came to bear both of these phonetic values, even in words which have no connection with giving.

The ambiguities arising from the use of this mixed system of ideographic and phonographic signs, many of which were polyphonous, made necessary, as in Babylonia and China, the simultaneous employment of explanatory determinatives, which were placed after words phonetically expressed in order to serve as an aid to the reader in determining the meaning.

These determinatives are of two kinds, Special Determinatives, whose use is confined to one word or one idea; and Generic Determinatives, which, like the Chinese "keys," refer to whole classes of words. The special determinatives are very numerous, and seem to

have been added by the scribe almost at his discretion. Thus in the group  , *ser*, a "giraffe," the first two symbols, which are phonograms expressing the sound *ser*, are followed by the picture of the animal as a special determinative for this particular word. On the other hand, the generic determinatives, which are only about one hundred in number, were fixed conventional signs, employed with considerable strictness. For instance, the picture of a man squatting down is used as the generic determinative for the proper names of persons, for pronouns, and participles; three hills are used as the determinative for the names of countries and nations; an eye for words relating to seeing and knowing; a man with his hand pointing to the mouth for words relating to eating, speaking, or thinking; two legs for words connected with locomotion; and a hand with a club for actions implying the use of force. A dry branch is the determinative for objects made of wood, three rings for articles of metal, while a piece of skin is used for quadrupeds, a duck for birds, and for all words implying smallness, inferiority, vileness, or wickedness, the determinative is the picture of a sparrow.

Up to this point the history of Egyptian writing, as a system of phonograms developed out of primitive picture ideograms and interpreted by means of determinative signs, offers a remarkable parallel to the development of other primitive methods of writing, such as the cuneiform or the Chinese. But we are

now confronted with a phenomenon of supreme importance, as to which the Egyptian writing differs from all other primitive graphic systems. Associated with the numerous ideographic and syllabic signs we find certain other characters, limited in number, which must be pronounced to be ALPHABETIC in their nature. These alphabetic symbols are the actual germs out of which our own alphabet has grown. They are not confined to inscriptions of late date, but make their appearance on the most ancient monuments. In the inscription of King Sent, which is the oldest written record in existence, three of these alphabetic characters are employed to spell the monarch's name, which reads . Two of our English letters, *n* and *d*, are derived, in strict historical filiation, from two of the alphabetic signs, and , by means of which the name of King Sent is expressed. As another instance, we may take the cartouche of Khefu (Cheops), the first king of the fourth dynasty, who was the builder of the great pyramid. Here also we find alphabetic symbols which have descended to ourselves. The first character *kh*, is the parent of our **H**, a letter which still retains one of the transverse bars of the Egyptian character. The second character is the cerastes , from which the letters **F, Y, V, U, W** have been derived.

The immensely early date at which symbols of an alphabetic nature are found on the Egyptian monuments is a fact of great interest and importance. It is

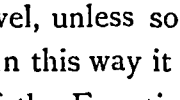
of great interest, inasmuch as it constitutes the starting point in the history of the Alphabet, establishing the literal truth of the assertion that the letters of the alphabet are older than the pyramids—older probably than any other existing monument of human civilization, with the possible exception of the signs of the zodiac.

Of considerable importance also, as bearing on the history of civilization, is the fact that at the date of the very oldest Hieroglyphic records the Egyptians had already advanced to the great conception of alphabetic writing. That this conception is no such easy matter as it may seem is shown by the fact that neither the Babylonians, the Assyrians, the Medes, or the Japanese succeeded in passing beyond the stage of syllabism. Symbols for vowel sounds are found in the syllabaries of these nations, but the more difficult conception of a consonant was not attained or even approached. Easy as it seems to ourselves, who are familiar with it, the notion of a *con-sonant*, a sound that cannot be sounded except in conjunction with some other sound, different from itself, is by no means so simple as it may appear. It involves the decomposition of the syllable into its ultimate phonetic elements—the mental isolation, for instance, of the unpronounceable sound *t*, which is common to the articulations *tea*, *tie*, *toe*, and *two*, and yet is not identical with any of them. That so many cultivated races should have failed in attaining to this pregnant generalization may, by itself, be accepted as

a sufficient proof of its inherent difficulty, while certain peculiarities which attach to the Hieroglyphic letters clearly indicate that the Egyptian alphabet was not, so to speak, an invention, but was obtained by gradual evolution out of a prior syllabary. That the Egyptian consonantal signs must be regarded as alphabetic rather than syllabic, is shown by the fact that most of them can unite with any of the vowels. Yet that they have been developed out of a syllabary is indicated by the existence of certain survivals from the syllabic stage. These survivals are somewhat of the same nature as those which in the case of the Persian cuneiform alphabet point so unmistakably to a syllabic origin. Now Egyptologists have noted that each of the Egyptian consonants has its "complementary vowel," which in reading must often be treated as a mere expletive. The consonants also show a preference for certain vowels, and an aversion for others. This latent syllabism, which underlies the alphabetism of the Hieroglyphic writing, indicates with sufficient clearness the origin of the Egyptian alphabet. This conclusion has an important bearing on any estimate of the date to be assigned to the beginning of the Egyptian writing, and consequently of the Egyptian civilization. The alphabetic characters must have slowly grown out of syllabic signs, and these in turn must have been developed out of verbal phonograms. The verbal phonograms must have arisen from ideograms, which again could only have originated in

mere picture writing. The analogy of other graphic systems, more especially the cuneiform and the Chinese, leads to the belief that it must have taken many generations to effect each of these five stages of development, and it would not be unreasonable to suppose that the whole series of evolutions by which alphabetic symbols were ultimately produced could not have been effected in a period of less than a thousand years. King Sent, in whose reign the alphabetic characters were already in use, may be taken to have lived between 4000 and 4700 B.C. Startling as the result of such calculations may appear, it must be affirmed to be probable that the beginnings of the graphic art in the valley of the Nile must be relegated to a date of seven or eight thousand years from the present time.

The success of the Egyptians in passing the difficult barrier which divides syllabic from alphabetic writing was no doubt facilitated by the nature of their language. The Egyptian vowels seem to have been of a more indeterminate character than the vowels in many other languages, partaking probably of the nature of that *urvocal* or fundamental vowel sound into which our English vowels tend to lapse, as in the words *a*bout, ass*e*rt, b*i*rd, *o*ven, b*u*t, d*ou*ble. Egyptian words are constantly written without the vowel signs, the complementary vowels of each consonant being especially liable to omission. We may suppose that the vowel was in a sort of way regarded as inherent in the

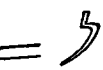
preceding consonant, very much as in the case of Sanskrit and Ethiopic, in which languages every consonant is regarded as containing the short *ă* as an inherent vowel, unless some other vowel is expressly indicated. In this way it seems to have been assumed that each of the Egyptian letters was followed by its complementary vowel, only initial and final vowels, and medial vowels when emphatic, being necessarily written down. Thus the alphabetic symbol (*s*) was originally the picture of a "bolt," *ses*, and its primitive syllabic value must have been *se*. In conjunction with (*i*) the group  is read *si*, the vowel sound of *e* being elided, so that the symbol has the power of a pure consonant. It may be regarded as probable that it was in some such manner that the difficult conception of a consonant grew up, slowly and almost unconsciously.

The next stage in the formation of the Egyptian alphabet seems to have been the gradual selection of preferential symbols for alphabetic use. Almost any one of the 400 Egyptian phonograms could be employed acrologically to denote the initial sound of the word, but we find that in practice this wide liberty was greatly abridged. A useful convention gradually restricted the arbitrary use of these phonograms, and it became customary for the scribes to confine their choice of the symbols that might be used to denote any particular sound to two or three of the more easily written hieroglyphs.

The number of characters which at various times were thus used alphabetically may be reckoned at forty-five. Several of these characters, however, are either of comparatively rare occurrence, or were confined to some particular period, or are used only in writing certain words. Thus the sound of *p* can be represented either by the "shutter" , or by the "flying bird" . The first of these characters is used universally at every period, while the second is rare, especially on the earlier monuments. For the sound *n* three symbols may be employed. The "water line" was the sign in general use. The representation of the "red crown" of Lower Egypt , is only found on monuments of comparatively late date, while the "vase" is rare, its use being confined to certain words. It will be observed that for each of these two consonants, *p* and *n*, we have a normal sign, used at every period, and not limited to any particular words, together with one or two variants, whose use is more or less exceptional. In this way the forty-five alphabetic symbols may practically be reduced to twenty-five. This result agrees with the tradition handed down by Plutarch, that the Egyptians possessed an alphabet of twenty-five letters. These letters are as follows, the conventional values being expressed in the symbols of the Standard Alphabet.[1]

[1] See *Transactions of Congress of Orientalists* (1874), p. 441; de Rougé, *Mémoire*, pp. 17—20; Lepsius, *Standard Alphabet*, p. 193.

EGYPTIAN HIEROGLYPHIC ALPHABET.

	Values.	Name.	Normal Characters.	Variants.
1	*a*	eagle		
2	*ā*	reed		
3	*ā*	arm		
4	*i*	parallels		
5	*ī*	double reed		
6	*u*	chick		
7	*k*	bowl		
8	*ḳ*	throne		
9	*q*	angle		
10	*χ*	sieve		
11	*h*	mæander		
12	*ḥ*	knotted cord		
13	*t*	semicircle		
14	*ṯ*	hand		
15	*t'*	snake		
16	*θ*	tongs		
17	*s*	chairback		
18	*š*	inundated garden		
19	*p*	shutter		
20	*b*	leg		
21	*f*	cerastes		
22	*r*	mouth		
23	*l*	lioness		
24	*m*	owl		
25	*n*	water-line		

Thus we see that from the times of the earliest known monuments the hieroglyphic writers possessed a sufficient number of true letters to enable them to write alphabetically. They seem, however, not to have dared to trust themselves with their own great invention, by confining themselves, as they might have done, to the magnificent simplicity of the alphabet which they had potentially discovered. They thought it needful to interpret the meaning of their alphabetic symbols by perplexing additions of ideographic and syllabic signs. We find a word spelt out alphabetically, a needless syllabic sign is then added, and this is followed by an unnecessary ideogram. The plan is so cumbrous as to seem to us almost inconceivable. We have letters, syllabics, and ideograms piled up one on another in a perplexing confusion. So many crutches were thought necessary, that walking became an art of the utmost difficulty.

But all the same, in the tangled wilderness of the hieroglyphic writing the letters of the alphabet lay concealed. All that remained to be done was to take one simple step—boldly to discard all the non-alphabetic elements, at once to sweep away the superfluous lumber, rejecting all the ideograms, the homophones, the polyphones, the syllabics, and the symbolic signs to which the Egyptian scribes so fondly clung, and so to leave revealed, in its grand simplicity, the nearly perfect alphabet of which, without knowing it, the Egyptians had been virtually in possession for almost countless ages.

But this great achievement, simple and easy as it seems, was beyond the power of Egyptian conservatism to effect. The step was so easy as almost to be impossible. It was left to another people to take up the unsolved problem, and to effect the grand discovery—a discovery at once so fertile in its results, so weighty in the history of the progress of human culture. The triumph of this great conception was reserved for the gifted Semitic race. To the sons of Shem we owe the two most precious possessions of mankind. The first of them is the Alphabet: the second is the Book, and the Religion of the Book.

The story of the transition from Hieroglyphs to Letters must be reserved for another chapter.

CHAPTER II.

THE ORIGIN OF THE ALPHABET.

§ 1. *The Genealogy of the English Alphabet.* § 2. *The Alphabetic Tradition.* § 3. *The History of de Rougé's Discovery.* § 4. *The Papyrus Prisse.* § 5. *Identification of the Egyptian Prototypes of the Semitic letters.* § 6. *Objections to de Rougé's Hypothesis.* § 7. *The Chronological Conditions.* § 8. *The Geographical Probabilities.*

§ 1. THE GENEALOGY OF THE ENGLISH ALPHABET.

In the preceding chapter the ultimate derivation of our own alphabet from the Egyptian hieroglyphics has been assumed as an admitted conclusion of science. In the present chapter the arguments by which scholars have been led to accept this opinion will be stated in detail.

The immediate parentage of our English alphabet is not difficult to determine. By a series of easy steps the forms of the very letters which the reader has before him on this printed page may be traced back for some five-and-twenty centuries. These "Roman types," as they are appropriately called, have not varied appreciably in their forms from the types used at Subiaco, Rome, and Venice by the Italian printers of the

15th century. The forms of these types were imitated from the letters of the beautiful minuscule manuscripts of the 10th and 11th centuries. These minuscule letters are cursive forms of the earlier uncials, which were themselves derived from the Roman letters of the Augustan age, which are very nearly the same as the capital letters which are now used by printers. These Roman capitals are practically identical with the letters employed at Rome in the 3rd century B.C., such, for instance, as are seen in the well-known inscriptions on the tombs of the Scipios, now among the treasures of the Vatican. These again do not differ very materially from forms used in the earliest existing specimens of Latin writing, which may probably be referred to the end of the 5th century B.C.

Thus it appears that our English alphabet is a member of that great Latin family of alphabets, whose geographical extension was originally conterminous, or nearly so, with the limits of the Western Empire, and afterwards with the ancient obedience to the Roman See.

There is therefore no difficulty in tracing back our alphabet for some twenty-three centuries to its early home in central Italy. Going backward another step in search of the source of the primitive alphabet of Rome, we find that it was derived from a local form of the Greek alphabet, which prevailed in Bœotia and Eubœa about the 6th century B.C. This Eubœan alphabet seems to have been introduced into Italy by

GENEALOGY OF THE ENGLISH ALPHABET.

Old Greek.	Eubœan.	Latin.	Uncial.	Minuscule.	Venetian.	Roman.
Α	A	A	𝔄	𝔞 a	*a*	a
Β	B	B	𝔅 𝔟	𝔟	*b*	b
Γ	Γ	< C G	𝔠	c	*c*	c
			𝔊 𝔤	𝔤 𝔤 𝔤	*g*	g
Δ	Δ	D	𝔇 𝔡	𝔡 𝔡	*d*	d
Ε	Ε	E	𝔈 𝔢	𝔢 e	*e*	e
F	F	F	𝔉	f	*f*	f
Ζ	Ζ	Z	ℨ	𝔷	*z*	z
Η	Η	H	𝔥 𝔥	𝔥	*h*	h
Ι	Ι	I	𝔍	i j	*i j*	i j
Κ	Κ	K	𝔎	κ 𝔨	*k*	k
Λ	Λ	L	𝔏 𝔩	𝔩	*l*	l
Μ	Μ	M	𝔐	𝔪	*m*	m
Ν	Ν	N	𝔑	𝔫	*n*	n
Ξ	+	X	𝔛	χ 𝔵	*x*	x
Ο	Ο	O	𝔒	𝔬	*o*	o
Π	Π	P	𝔓	𝔭	*p*	p
Φ	Φ	Q	𝔔 𝔮	𝔮	*q*	q
Ρ	Ρ	R	ℜ	𝔯 r	*r*	r
Σ	Σ	S	𝔖	ſ 𝔰	*ſ s*	ſ s
Τ	Τ	T	𝔗 𝔱	𝔱 t	*t*	t
Υ	Υ	U V Y	𝔘	𝔲 𝔳 𝔴	*u v w*	u v w
			𝔜	𝔶	*y*	y
I.	II.	III.	IV.	V.	VI.	VII.

means of colonies from Chalcis, which were established in Sicily, and also in central Italy at Cumæ and Neapolis. The Chalcidian alphabet was a variety of the archaic alphabet of Greece, our knowledge of which is derived from numerous inscriptions, the earliest of which may probably belong to the eighth or even to the ninth century before Christ.[1]

If, pursuing the investigation one step further, we inquire into the source from which the primitive Greek alphabet was derived, we find that classical writers agree in attributing the invention of letters to the Phœnicians, from whose trading posts in the Ægean they were obtained by the Greeks. Our earliest authority is Herodotus. He says, "the Phœnicians introduced into Greece the knowledge of letters, of which, as it seems to me, the Greeks had heretofore been ignorant." The testimony of Diodorus Siculus is much to the same effect, and Pliny affirms that "to the Phœnicians belongs the glory of the invention of the alphabet."[2] Lucan, Clemens Alexandrinus, and Pomponius Mela repeat the same widely spread tradition.

But the universal belief of the ancient world, weighty as it is, cannot be deemed so conclusive as the internal evidence which is afforded by an examination of the

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[1] These changes are roughly exhibited in the Table on the opposite page. Being only a 'type table,' it has no pretensions to absolute palæographic accuracy.

[2] Herodotus, v. 58; Diodorus Siculus, v. 74; Pliny, *N.H.* v. 12, 13.

alphabet itself. The names, the number, the order, and the forms of the letters of the primitive Greek alphabet attest the Semitic origin, not only of the individual letters, but of the alphabet as a whole.

In default of further evidence, the very word ALPHABET[1] might suffice to disclose the secret of its origin. It is obviously derived from the names of the two letters *alpha* and *beta*, which stand at the head of the Greek alphabet, and which are plainly identical with the names *aleph* and *beth* borne by the corresponding Semitic characters. These names, which are meaningless in Greek, are significant Semitic words, *aleph* denoting an "ox," and *beth* a "house."

Not only do the names of the Greek letters thus testify to a Semitic origin, but the arrangement of the characters proves that they were handed over in the form of a complete alphabet by the Semites to the Greeks.

The following Table exhibits this essential identity of the two alphabets. The Hebrew has been selected as the type of a Semitic alphabet, as being more familiar than any other. Certain Greek letters of secondary origin, such as ϕ, χ, ψ, are omitted, while

[1] Although the actual word *alphabetum* does not happen to be used by any writer earlier than Tertullian, its existence may be inferred from the use of the compound ἀναλφάβητος, which dates from the time of Philyllius, a writer of the middle Comedy. The Roman usage appears from the often quoted line—

"Hoc discunt omnes ante *alpha* et *beta* puellæ."—Juvenal, xiv. 209.

NAMES AND ORDER OF THE SEMITIC & GREEK LETTERS.

THE HEBREW ALPHABET.					THE GREEK ALPHABET.			
Phonetic Values.	Forms.	Names.	Meanings.	The Primitive Order.	Forms.	Names.	Phonetic Values.	Numerical Values.
'a	א	Aleph	ox	I	*α*	Alpha	*a*	1
b	ב	Beth	house	II	*β*	Beta	*b*	2
g	ג	Gimel	camel	III	*γ*	Gamma	*g*	3
d	ד	Daleth	door	IV	*δ*	Delta	*d*	4
h	ה	He	window	V	*ε*	E-psilon	*ĕ*	5
v	ו	Vau	hook	VI	*ϝ*	Vau	caret	6
z	ז	Zayin	weapons	VII	*ζ*	[Zeta]	*z*	7
ch	ח	Cheth*	fence	VIII	*η*	Eta	*ē*	8
t	ט	Teth	serpent?	IX	*θ*	Theta	*th*	9
y	י	Yod	hand	X	*ι*	Iota	*i*	10
k	כ	Kaph	palm of hand	XI	*κ*	Kappa	*k*	20
l	ל	Lamed	ox-goad	XII	*λ*	Lambda	*l*	30
m	מ	Mem	waters	XIII	*μ*	Mu	*m*	40
n	נ	Nun	fish	XIV	*ν*	Nu	*n*	50
s	ס	Samekh	post	XV	*ξ*	[Xi]	*x*	60
'a	ע	'Ayin	eye	XVI	*ο*	O-micron	*o*	70
p	פ	Pe	mouth	XVII	*π*	Pi	*p*	80
ts	צ	Tsade	javelin?	XVIII	*ϡ*	[San]	caret	900
q	ק	Qoph	knot?	XIX	*ϟ*	Koppa	caret	90
r	ר	Resh	head	XX	*ρ*	Rho	*r*	100
sh	ש	Shin	teeth	XXI	*σ*	[Sigma]	*s*	200
t	ת	Tau	mark	XXII	*τ*	Tau	*t*	300

two obsolete letters, *vau* and *koppa*, are inserted, as they kept their places as numerals, although they fell into disuse as phonetic signs. The numerical values of the characters are also given, as they serve to establish the identity of the arrangement of the letters in the two alphabets.

It will be observed that the correspondence between the Greek and the Semitic names does not extend to the sibilants, a circumstance of which an explanation will hereafter be attempted.

Striking as is the agreement of the names and the arrangement of the letters in the Greek and Hebrew alphabets, no less conspicuous is the absence of the similarity which we might expect to discover in the forms of the corresponding characters. Thus the first Hebrew letter, *aleph* א, exhibits scarcely any appreciable resemblance to α, the Greek letter with which it is identified both by its name, *alpha*, and by its position at the head of the alphabet. Nor do we find in the forms of the second and the third letters, ב *beth*, and ג *gimel*, any closer approximation to their Greek equivalents, β *beta*, and γ *gamma*. In spite, however, of this nearly absolute dissemblance of form, the correspondence between the names, the values, and the order of the letters is sufficient to establish the common parentage of the two alphabets.

We are here taught, by an elementary example, a lesson of frequent application in the History of Alphabets; namely, the extreme variability, under

certain conditions, of the forms assumed by the characters. We shall hereafter discover that a comparison between either the names or the order of the letters frequently makes it possible to establish the close connection of alphabets in which the characters themselves exhibit little or no resemblance.

In the case of the Greek and Hebrew alphabets the dissimilarity between the forms of the characters can easily be explained. The cursive Greek and the square Hebrew are both of comparatively recent origin, and they can be traced backwards to their common source by means of a complete series of intermediate forms. Hence, for the present purpose, the modern characters may be set aside, and the ancient Greek and the ancient Semitic letters may be compared in the forms which are presented in early inscriptions.

The following Table exhibits the manner in which the forms of the Greek and Latin letters were derived from those of the early Semitic alphabet. In column I. the modern square Hebrew letters are given for the purpose of identification and convenient reference. Column II. contains the same letters in their oldest known forms, as they appear on the Moabite stone, and other monuments of the 9th and 8th centuries B.C. Column III. shows the forms of the letters found in the earliest Greek inscriptions, which are written from right to left, according to the Semitic practice. The letters consequently face in the same direction as their Semitic prototypes, with which they are practically identical.

TRANSMISSION OF SEMITIC FORMS.

	SEMITIC ALPHABETS.			GREEK ALPHABETS.						
	Phonetic Values.	Modern Square Hebrew.	Primitive Semitic.	First Epoch.	Second Epoch.	Third Epoch.		Fourth Epoch.		Phonetic Values.
				r. to l.	l. to r.	Eastern.	Western	Greek.	Latin.	
1	*'a*	א		Α	Α	Α	Α	Α	A	*a*
2	*b*	ב		S ꟽ	Β	Β	Β	Β	B	*b*
3	*g*	ג		⅂	⅂	Γ	ᐸ	Γ	C G	*c, g*
4	*d*	ד		Δ	Δ	Δ	▷	Δ	D	*d*
5	*h*	ה		ꟽ	⋿	Ε	⋿	Ε	E	*e*
6	*v*	ו		Y	Y	Y V	F Y V	V Y	F V	*f, v, u*
7	*z*	ז		I	I	I	I	Z	...	*z*
8	*ch*	ח		8	8	H	H	H	H	*ē, h*
9	*ṭ*	ט		⊗	⊗	⊗ ⊕	⊕	⊙ ⊖ Φ	...	*th, ph*
10	*y*	י		≀	≀	I	I	I	I	*i*
11	*k*	כ		≻	⊬	K X	K	K X	...	*k, kh*
12	*l*	ל		⋎ ⅂ ⅂	⅃ ∧	∧	⅃	∧	L	*l*
13	*m*	מ		⅄	⅄	M	M	M	M	*m*
14	*n*	נ		⅂	⅂	⋀	⋀	N	N	*n*
15	*s*	ס		⋿	⋿	⋿	+	Ξ	X	*x*
16	*'a*	ע		o	o	O Ω	O	O Ω	O	*o*
17	*p*	פ		⅂	Γ	Γ	Γ	Π	P	*p*
18	*ts*	צ		⋌	M	...	M	...	...	*s*
19	*q*	ק		Φ	Φ	...	Φ	...	Q	*q*
20	*r*	ר		⅂	P	P	ꟽ	P	R	*r*
21	*sh*	ש		≻	≼	Σ	≀	Σ	S	*s*
22	*t*	ת		T	T	T	T	T	T	*t*
		I.	II.	III.	IV.	V.	VI.	VII.	VIII.	

A comparison of the forms of the corresponding characters in these two columns shows not only a resemblance amply sufficient to establish the connection of the two alphabets, but a similarity so close that it may almost be called an identity of form. This fact should be noted, as it has an important bearing on the vexed question of the date at which the Phœnician alphabet was transmitted to the Greeks.

Somewhat later is the Greek alphabet of the second epoch, which is given in column IV. It is taken from inscriptions written in the direction from left to right which subsequently prevailed in Greece. The letters consequently face to the right instead of the left, but in other respects they have undergone no important changes.

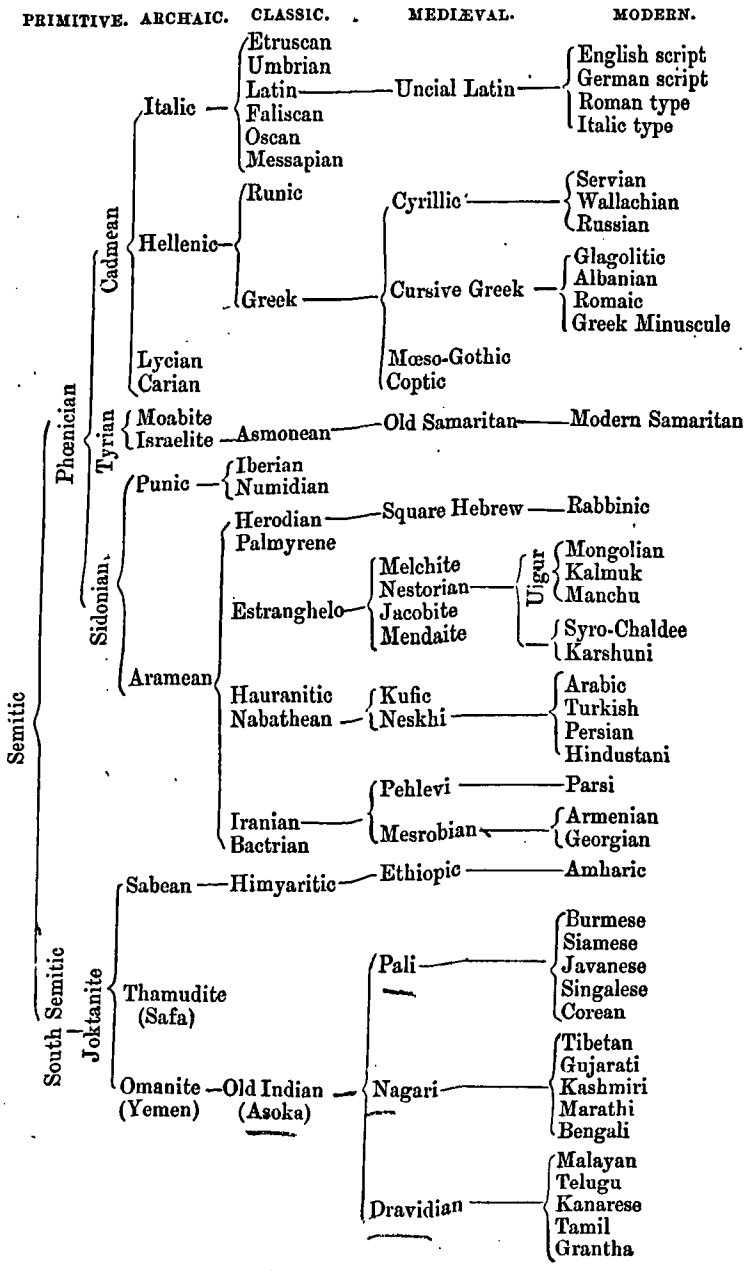
The two next columns (V. and VI.) represent the third or transition epoch of the Greek alphabet, which lasted to about the end of the 5th century B.C. It will be observed that two definite types have now arisen. The first, which may be called the Eastern type, was used in Ionia; while the second, or Western type, is chiefly found on the mainland of Hellas. These divergent types became the parents of the two great alphabets of Christendom; the Eastern, or Ionian alphabet, developing during the 4th century into the standard Greek alphabet of the classical period, given in column VII.; while the Western, or Hellenic alphabet, became the source of the alphabet of Italy, shown in column VIII., from which the modern alphabets of

Western Europe have been derived. The table therefore not only completes the internal evidence by which the ancient tradition as to the Semitic origin of the Greek alphabet is established, but also conveniently exhibits the chief stages of the process by which our English capitals are connected with the most ancient known forms of the Semitic alphabet.

It is surprising to find how little change has been effected during the twenty-seven centuries which divide the oldest Semitic inscriptions from the present day. The essential features in the outline of each of our own letters may be detected without difficulty in the characters used by the king of Moab.

Few alphabets have conserved the primitive forms so tenaciously as our own, and in no case have we so complete a series of intermediate links. It will not prove, however, to be a much more difficult task to trace back to the Moabite stone the forms of the characters in many other alphabets, such as the Samaritan, the Syriac, the square Hebrew, or the Russian. In the case of certain Eastern alphabets, such as the Armenian, the Pehlevi, or the Pali, the process may not be so easy or so certain, but in spite of all difficulties, which arise chiefly from the loss of occasional links in the chain of monumental evidence, this cardinal fact may be assumed to be capable of proof—that the primitive Semitic alphabet was the source from which all existing alphabets have been derived. Thus it may be affirmed that the Moabite stone exhibits the embryo

Genealogy of the Semitic Family of Alphabets.



forms of all the letters, two or three thousand in number, in every one of the alphabets which are now in use throughout the world.

For purposes of reference it may be convenient to give in this place a genealogical table of the affiliation of the principal members of the great Semitic family of alphabets, the precise relationships of which will have hereafter to be established.

In this table the vertical arrangement is roughly geographical, while the lateral arrangement is chronological.

§ 2. THE ALPHABETIC TRADITION.

Before commencing the task of examining the evidence which goes to establish the genealogy of existing alphabets, it will be necessary to investigate the origin of the Semitic alphabet itself—the great mother alphabet, which has become the fruitful parent of so numerous a progeny.

The tradition of the ancient world, which assigned to Phœnicia the glory of the invention of letters, declared also, though in more doubtful tones, that it was from Egypt that the Phœnicians originally derived the knowledge of the art of writing, which they afterwards carried into Greece. Eusebius has preserved a passage from the alleged writings of the so-called Tyrian historian Sanchuniathon, from which we gather that the Phœnicians did not claim to be themselves the inventors of the art of writing, but admitted that it was

obtained by them from Egypt. Plato, Diodorus Siculus, Plutarch, Aulus Gellius, and Tacitus, all repeat the same statement, thereby proving how widely current throughout the ancient world was the opinion that the ultimate origin of letters must be sought in Egypt. It may suffice to quote the words of Tacitus, who says, "Primi per figuras animalium Ægyptii sensus mentis effingebant; (ea antiquissima monimenta memoriæ humanæ inpressa saxis cernuntur) et litterarum semet inventores perhibent. Inde Phœnicas, quia mari præpollebant, intulisse Græciæ, gloriamque adeptos, tanquam repererint quæ acceperant."[1]

It may be a question whether this account is to be regarded in the light of a genuine tradition, or whether it may be merely the statement of a plausible hypothesis.

When, however, the value of this ancient belief, itself antecedently so probable, comes to be tested by the aid of the resources of modern scientific investigation, it is at once apparent that there is no such easy and certain transition from the Phœnician to the Egyptian writing, as from the alphabet of Greece to the primitive alphabet of the Semitic nations.

The difficulties which have caused many scholars to hesitate in accepting the ancient belief as to the Egyptian origin of the Semitic alphabet are, in truth, of a formidable nature.

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[1] Tacitus, *Ann.* xi. 14.

It has been shown in the preceding chapter that the Egyptian hieroglyphic writing was alphabetic only in a restricted sense. On the Egyptian monuments we find a limited number of alphabetic characters used in conjunction with a much larger number of ideographic and syllabic signs. Putting these aside, and taking into account the alphabetic symbols alone, we do not find, as in the parallel case of the Greek and Semitic alphabets, any appreciable correspondence in the number, the order, the names, or the forms of those characters which possess like values in the two systems of writing. If the reader will compare the letters of the ancient Semitic alphabet, as given on page 78, with the characters of the so-called hieroglyphic alphabet, on page 67, he will not only see that the general appearance of the two alphabets is wholly dissimilar, the one being geometrical and the other pictorial, but he will find it difficult to discover, among the twenty-two Semitic letters, a single instance of a character which bears any very noticeable resemblance to a character of corresponding value among the forty-five alphabetic signs of the hieroglyphic alphabet.

Such dissimilarity of form would not, however, be a fatal difficulty if certain other tests of alphabetic derivation held good. We have just seen that the names of the Greek letters furnish by themselves a convincing argument for the Semitic origin of the Greek alphabet. In the case of the Egyptian letters this test fails. The names of the Egyptian letters, so far as they are known,

do not agree with the names of the corresponding Semitic letters save in one or two instances, in which the resemblance of the names may well be accidental. And it is beyond dispute that the names of the Semitic letters must have originated among a Semitic people, since they are, with hardly an exception, significant Semitic words. These very names are, moreover, of a character which leads us to suppose that the Semites must have recognized in the forms of their letters representations of the familiar objects which were designated by the names they used.

The Semitic word *aleph*, for instance, denotes an "ox," and it is not difficult to recognize in the shape of the Phœnician letter a resemblance to the outline of the head and horns of an ox. But the objects which may be supposed to be pictured by the Semitic letters are in no case the same objects as those which are represented by the Egyptian hieroglyphic pictures which express the corresponding sounds. In no way do the Semitic and Egyptian names imply a common descent from the same system of primitive ideograms—neither were the Semitic letter names borrowed bodily from the Egyptians, nor are they even translations of the Egyptian names into Semitic speech.

Neither do we find that the order of the letters in the Egyptian alphabet was the same as the Semitic order. The arrangement of the Semitic alphabet is of considerable antiquity, as is proved by the evidence afforded by the alphabetic Psalms, as well as

by the fact of the transmission of the Semitic arrangement to the Greeks. But this ancient order was not the same as the order of the Egyptian letters, which is known to us in great part from certain curious fragments of alphabetic litanies discovered by M. Mariette,[1] from which it appears that the letters of the Egyptian alphabet were arranged somewhat as follows: *t*, *s*, *ā*, *u*(*f*, *b*), *a*, *p*, *m*, *n*, *χ*(*ḥ*), *ṇ*, *š*(*s*), *t'*, *v*(*b*). Although the place of other letters, as *i*, *k*, *q*, *g*, *r*(*l*), has not been discovered, yet it is manifest from the fragmentary arrangement which we possess that the Semitic order could not have been based on that of the Egyptians.

It appears therefore that not one of those considerations which sufficed to establish the derivation of the Greek from the Semitic alphabet is available for any attempt to derive the Semitic letters from the hieroglyphic alphabet. The two alphabets agree neither as to the number, the order, the names, or the forms of the respective letters.

Till a very recent period these difficulties have led scholars of repute to the conclusion that classical tradition was at fault in asserting that the Phœnician letters were originally obtained from Egypt.

This was the opinion of Gesenius, who may be taken to represent the highest attainments of Semitic scholarship in the last generation. In his great work on

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[1] *Revue archéologique*, N.S., vol. xv., 1867.

Semitic Palæography[1] he concludes that the Phœnician letters originated in an independent system of Semitic picture writing. For example, he considers that the letter *aleph* was originally the picture of the head of an ox, *beth* of a house or tent, *gimel* of a camel's hump, *daleth* of a door, and so on with the rest.

The state of opinion only a few years ago may be conveniently gathered from the now curiously antiquated article on the "Alphabet" which appears in the eighth edition of the *Encyclopædia Britannica*, which was published so recently as 1853. The writer sums up his antediluvial conclusions as to the origin of the alphabet in the following words:—"The Egyptian hieroglyphics, the Chinese characters, and the supposed syllabic alphabets, have been examined, and they do not afford, as is commonly asserted, any clue to lead us to the invention of the alphabet. Since we are unable, either in history, or even in imagination, to trace the origin of the alphabet, we must ascribe it, with the Rabbins, who are prepared with authenticated copies of the characters they used, and of those of Seth, Enoch, and Noah, to the first man, Adam; or we must say, with Pliny, 'ex quo apparet æternus literarum usus;' or we must admit that it was not a human, but a divine invention."

Such opinions are hardly a matter of surprise when

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[1] Gesenius, *Scripturæ Linguæque Phœniciæ Monumenta*, Lipsiæ, 1837.

we find that two years later, in 1855, Ernest Renan, one of the most eminent of living Semitic scholars, thus expresses himself:—"L'origine de l'écriture, chez les Sémites, comme chez tous les peuples, se cache dans une profonde nuit."[1]

Nearly twenty years later Prof. Whitney takes almost the same view, and speaks of the "venerable Phœnician" as the ultimate source of almost all known modes of written speech.[2]

In a subsequent volume he only goes so far as to say, "It is at least exceedingly probable, though far from admitting of demonstration, that the Phenicians learned to write of the Egyptians. Either of the Egyptian, or of some other analogous history of alphabetic development, the Phenicians inherited the results."[3]

§ 3. THE HISTORY OF DE ROUGÉ'S DISCOVERY OF THE ORIGIN OF THE ALPHABET.

From the foregoing citations it will be seen that down to a very recent time the classical tradition was very generally discarded, and the origin of the alphabet was deemed by the highest authorities to be an unsolved, if not an insoluble problem.

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[1] Renan, *Histoire des Langues Sémitiques*, p. 113.

[2] Whitney, *Oriental and Linguistic Studies*, 1st series, 1874. See Max Müller, *Chips from a German Workshop*, iv. p. 486.

[3] *Oriental and Linguistic Studies*, 2nd Series, 1875.

But, as in so many similar cases, the result of the latest investigations has been to rehabilitate the discredited tradition of antiquity. It may now be affirmed that scholars are pretty generally agreed, not only as to the source from which the Semitic alphabet was obtained, but also as to the special place, mode, and period in which it must have originated.

The entire glory of this great discovery is due to the genius of a French Egyptologist, Emanuel de Rougé. The first account of his investigations was given in a paper read before the *Académie des Inscriptions* in the year 1859. A meagre summary of his results was published at the time in the *Comptes rendus*, but by some mischance the MS. itself was lost, and has never been recovered. M. de Rougé's intention of rewriting the whole essay was unfortunately never carried out. After his death the rough draft of the original memoir was found among his papers, and, at last, after a delay of fifteen years, was edited, completed, and given to the world by the filial piety of M. Jacques de Rougé, the worthy son of a worthy father. This epoch-making work,[1]—the first attempt to treat the problem in the modern scientific method—may be said to have made possible, at last, a History of the Alphabet.

In such a case any absolute demonstration is perhaps

[1] *Mémoire sur l'origine Égyptienne de l'alphabet Phénicien.* Paris, 1874.

unattainable, owing to the paucity of the available materials. It may, however, be affirmed that M. de Rougé's theory offers not only a possible, but the probable solution of the problem; while, on the other hand, no rival hypothesis has as yet been propounded which demands even serious discussion. Under these circumstances, M. de Rougé's theory may be placed before the reader as a conclusion which has met with general acceptance among scholars.

The secret of M. de Rougé's success in solving the problem which had baffled so many of his predecessors must be attributed to his clear perception of the fact, itself antecedently probable, that the immediate prototypes of the Semitic letters must be sought, not, as had hitherto been vainly attempted, among the hieroglyphic pictures of the Egyptian monuments, but among the cursive characters which the Egyptians had developed out of their hieroglyphs, and which were employed for literary and secular purposes, the hieroglyphic writing being reserved for monumental and sacred uses.

Of these cursive characters there are several types. That which bears the least resemblance to the hieroglyphics is the Demotic writing, a highly cursive form, which originated about the time of the twenty-second dynasty, a period when the Semitic alphabet was already in use. The Demotic writing was itself developed out of the Hieratic of the new Empire, which is represented by numerous MSS. of the nineteenth

dynasty. Till of late years these were the only known forms of cursive Egyptian writing. Rejecting both of these types, not only because they present no adequate resemblance to the Semitic letters, but also as being of a date too recent to satisfy the conditions of the problem, M. de Rougé had recourse to an immensely older form of Hieratic writing, exemplars of which have quite recently been brought to light. This earlier Hieratic arose during the early empire, and was in use at the time of the Semitic conquest of lower Egypt, the great event which is usually known as the invasion of the Hyksos. Thus M. de Rougé, with great reason, refers the origination of the Semitic alphabet to the period of five or six centuries during which a race of Semitic kings ruled in the Delta.

But, as has been well said, he first discovers who proves. M. de Rougé's suggestion of the probable source of the Semitic alphabet must have continued to be nothing more than a brilliant guess if it had not been for the skill and patience with which he followed up the clue which he had discovered, and for the rigorously scientific mode in which he applied the stores of his great learning to working out the problem in its minutest details.

M. de Rougé begins by determining the oldest known forms of the Semitic letters. For comparison with these he selects such of the Hieratic characters as were used alphabetically, confining himself to the forms which were in use prior to the expulsion of the Hyksos.

He then proceeds to investigate the exact sounds which were represented by the several symbols, examining with minute care the question as to the phonetic equivalence of each of the Egyptian and Semitic characters. In this laborious task he makes all possible use of the Semitic transcriptions of Egyptian words which occur in the Bible, but he relies chiefly on the Egyptian transliterations of the Semitic names of Syrian towns which are found in the records of the Asiatic conquests of the kings of the new Empire, and in the curious road book of Syrian travel contained in the Papyrus Anastasi.

In this way all the possible Hieratic prototypes of each of the Semitic letters are ascertained. It is then found that the primitive form of almost every Semitic letter can be easily and naturally deduced from the form of its normal Hieratic prototype. Last, but not least, a reasonable explanation can be given of the anomalous cases.

Such is a brief outline of the method pursued by M. de Rougé in establishing his thesis, a method so precise and scientific that it may serve as a model for any similar investigation.

§ 4. THE PAPYRUS PRISSE.

A brief account must now be given of the epigraphic materials which are available for working out the problem of the origin of the alphabet.

The cardinal example of the oldest epoch of Semitic palæography is the inscription of Mesha, king of Moab. Mesha was a contemporary of Ahab and Jehoram.[1] Ahab's reign extended over the two last decades of the 10th century B.C., and consequently the inscription of Mesha must have been engraved at the beginning of the 9th century. The alphabet of the Moabite stone may therefore be regarded as representing the Semitic alphabet of the 10th century.

The Moabite stone was only discovered in 1868, and certain other inscriptions[2] which belong to the same primitive epoch were likewise unavailable in 1859, when M. de Rougé first put forward his hypothesis. He was consequently obliged to obtain the forms of his Semitic characters from the inscription on the sarcophagus of Eshmunazar, king of Sidon, which represents a decidedly later type of the Semitic alphabet. In several important respects the subsequent discovery of earlier monuments goes to confirm the results which were obtained by M. de Rougé from the imperfect materials which alone were available at the time when his investigation was undertaken.

The materials for reconstructing the Hieratic alphabet of the early Empire are as scanty as the primitive monuments of Semitic epigraphy. Hieratic Papyri are numerous, but they belong almost exclusively to the

[1] 2 Kings iii. 4.

[2] As the Siloam inscription, and the inscriptions on the bronze vessels from Cyprus.

second type of the Hieratic writing, which prevailed during the new Empire.

The new Empire, which begins with the eighteenth dynasty, was preceded by a long period of Semitic domination during which three dynasties of Shepherd Kings bore rule in Egypt. As to this period, the Egyptian records are almost silent. We possess no single fragment of Hieratic writing which can be certainly assigned to the actual period of the Shepherd Kings, and there are in existence only three MSS. which are prior to the Semitic conquest.[1] It is owing solely to the accidental preservation of these three frail fragments of papyrus that the solution of the great problem of the origin of the alphabet has become possible.

These three MSS. are by no means of the same age or value, as will be seen from the following description.

1. In the Museum at Berlin there are some fragments of a Hieratic papyrus containing cartouches of the kings Amenemhat and Usurtasen, who belonged to the twelfth dynasty, which preceded the invasion of the Hyksos.

2. There is a MS. in the possession of Prof. Lepsius in which the writing is still more primitive in type, and in which mention is made of Khefu and other kings of the earlier dynasties of Memphis.

[1] The "Papyrus Ebers" belongs only to the middle of the 16th century B.C. The age of the "Geometrical Papyrus" is still unsettled.

3. The most perfect specimen of the Hieratic writing of the early period is the celebrated papyrus which was procured at Thebes by M. Prisse d'Avennes, and given by him to the Bibliothéque Nationale at Paris. This MS. is usually called, from the name of the donor, the "Papyrus Prisse." It was published in facsimile by M. Prisse in 1847, and consists of eighteen pages of a magnificent Hieratic writing, unequalled for size and beauty, the characters being unusually large, full, and firm. The first two pages are only a fragment, beginning in the middle of a sentence, and are separated from the remainder by a space where the writing has been effaced. The last sixteen pages form another and complete work. A statement at the end of the papyrus shows that it is only a copy of the original work, which purports to have been composed by Prince Ptah-Hotep, who lived during the reign of Assa, a king of the fifth dynasty. The date of the copy cannot positively be determined, but as the MS. was found in a tomb of the eleventh dynasty, the copy must be anterior to the Hyksos invasion, and therefore older by many centuries than the time of Moses,—older probably than the date usually assigned to Abraham—while the work itself, if it was really composed as it purports to be, about the time of the fifth dynasty, must be regarded as the most ancient of all existing books.

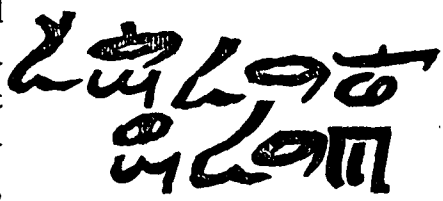
By the curious irony of chance this primæval treatise—this stray waif which has thus floated down to us

from the days of the very childhood of the world—has for its subject the moralizing of an aged sage, who deplores the deterioration of his age, and laments the good old times which had passed away. He describes pathetically the infirmities of old age, he gives precepts for younger men founded on his own experience; and declares that study of the words of ancient wisdom, which should be the food alike of children and of grown men, is the one thing from which solid satisfaction can be derived. Humility and obedience, these are the foundation of all virtue. Sons should be obedient: God loves the obedient, and hates the disobedient. He goes on thus to commend humility:—"If thou art become great, if after being in poverty thou hast amassed riches, and art become the first in thy city, if thou art known for thy wealth and art become a great lord, let not thy heart become proud, for it is God who is the author of them for thee."[1]

This priceless MS., the most ancient of all books, supplies the best type of the Hieratic character which was in ordinary use for literary and commercial purposes at the time of the Semitic conquest. The evidence which it affords is supplemented and strengthened by the two other existing fragments of the cur-

[1] The best account of this most interesting MS. has been given by Chabas, *Le plus ancien livre du monde. Étude sur le papyrus Prisse*, in the *Revue archéologique* for 1858. See also Mahaffy, *Prolegomena to Ancient History*, pp. 277—289; Birch, *Egypt*, p. 49; Brugsch-Bey, *History of Egypt under the Pharoahs*, vol. i. pp. 92, 93; De Rougé, *Mémoire sur l'origine Égyptienne de l'alphabet Phénicien*, p. 25.

sive writing of the early period. The three papyri agree essentially with each other as to the general style of the writing and as to the forms of the individual characters. They also agree in exhibiting a type of writing quite distinct from the Hieratic writing of the new Empire. The characteristics of the two styles are unmistakeable. The later Hieratic is more square, the strokes are fine and delicate, and the characters differ so little from the hieroglyphs from which they are derived that it might be said that the scribe seems never to lose the remembrance of the hieroglyphic forms, which he translates, as it were, by conventional abbreviations. The Hieratic writing of the new Empire is in fact hardly more than the Egyptian picture writing somewhat conventionalized. The earlier Hieratic, on the other hand, is in no sense a conventionalized picture writing: it is, as is shown by the subjoined facsimile,[1] a true cursive character, black, rounded, and bold—recalling to a much lesser extent the forms of the hieroglyphic prototypes,



so much so, indeed, that to all appearance it may have been written by scribes wholly ignorant of the ancient monumental forms from which it was derived.

[1] This facsimile, which represents portions of two lines of the Papyrus Prisse, has been engraved from a tracing of the original, and gives a good notion of the size and character of the writing.

It is from this cursive writing of the early Empire, so peculiar, so unmistakeably distinct from every other form of Egyptian writing, that M. de Rougé obtains the characters which he brings forward as the prototypes of the letters of the Semitic alphabet.

§ 5. THE IDENTIFICATION OF THE EGYPTIAN PROTOTYPES OF THE SEMITIC LETTERS.

Before entering on the exposition of the details of de Rougé's discovery it will be convenient to set forth for reference, in tabular form, a summary of the results at which he arrives.

Column IV. of the table contains the Semitic characters as they appear on the Moabite stone and other early monuments. The Hieratic forms from which de Rougé derives them are given in column III. The monumental Hieroglyphics, of which the Hieratic characters are cursive forms, together with the conventional names by which they are usually designated by Egyptologists, will be found in columns II. and I. The three last columns, V., VI. and VII., contain the corresponding letters in later alphabets. The Hieratic characters in column III. are taken, with two or three exceptions, from the Papyrus Prisse. The exact forms have been traced from the original papyrus in Paris, and reproduced from the tracings by a photographic process, in order to secure the greatest possible accuracy.

AFFILIATION OF EGYPTIAN AND SEMITIC ALPHABETS.

Values.	EGYPTIAN. Hieroglyphic.		EGYPTIAN. Hieratic.	SEMITIC. Phœnician.		LATER EQUIVALENTS. Greek.	Roman.	Hebrew.	
a	eagle					A	A	א	1
b	crane					B	B	ב	2
ḳ (g)	throne					Γ	C	ג	3
ṯ (d)	hand					Δ	D	ד	4
h	mæander					E	E	ה	5
f	cerastes					Y	F	ו	6
z	duck					I	Z	ז	7
χ (ḫ)	sieve					H	H	ח	8
θ (ṯ)	tongs					Θ	...	ט	9
i	parallels					I	I	י	10
k	bowl					K	K	כ	11
l	lioness					Λ	L	ל	12
m	owl					M	M	מ	13
n	water					N	N	נ	14
s	chairback					Ξ	X	ס	15
ȧ	.....	....	....	.....		O	O	ע	16
p	shutter					Π	P	פ	17
ṯ (ts)	snake					...	...	צ	18
q	angle					...	Q	ק	19
r	mouth					P	R	ר	20
š (sh)	inundated garden					Σ	S	ש	21
ṯ	lasso					T	T	ת	22
	I.	II.	III.	IV.		V.	VI.	VII.	

In comparing the Semitic and Hieratic columns it must be remembered that the whole history of alphabetic development teaches us that considerable differences of form must have arisen during the ten or twelve centuries which separate the Papyrus Prisse from the Moabite stone. When we come to consider the conditions of the problem, the real matter for surprise is not that the resemblance should be so little, but that it should be so great. In fact, the forms of the Hieratic characters approach almost as closely to the Semitic letters as they do to the hieroglyphs, of which they are merely the cursive equivalents. It must, however, be remembered that the dissemblance of the hieroglyphic and Hieratic characters appears greater than it really is, because in many cases they face in opposite directions, the Papyrus Prisse being written, in the Semitic fashion, in horizontal lines from right to left, whereas in the hieroglyphic writing no such rule prevails, the characters being frequently arranged in vertical columns, or in horizontal lines running from left to right.

M. de Rougé sets forth with great minuteness the considerations which have led him to adopt each of his identifications. The student must be referred to his book for the details; but his exposition, though too lengthy and too technical to be adequately reproduced in this place, cannot be passed over altogether. Therefore the present section, which can be omitted by readers who are concerned only with results, will

be devoted to a brief summary of the grounds on which each of the Semitic letters has been assigned to its Hieratic prototype.

Instead of taking the letters in the order in which they appear in the Semitic alphabet, it will be more convenient to group them according to the usual physiological classification, as labials, palatals, dentals, liquids, sibilants, breaths, and semivowels.

The Hieratic characters may for convenience be designated and represented by their better known hieroglyphic prototypes, and the Semitic letters by means of the familiar square Hebrew types.

The Labials.

פ (*p*). The Egyptians had two homophonic signs for *p*, the 'shutter' , and the 'flying bird' . The latter is rare in the more ancient texts, being employed only for a few special words, while the 'shutter' is one of the commonest of the hieroglyphic symbols. It constantly transliterates the Semitic פ in the names of towns, and its cursive equivalent is the ordinary character used for *p* in the Papyrus Prisse. In the Semitic letter the three strokes at the top of the Hieratic character have disappeared. But in the Berlin Papyrus, which is somewhat later than the Papyrus Prisse, these three lines are already evanescent, appearing only as three dots. M. de Rougé acutely remarks that the form of the Semitic letter 7 does not

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explain the adoption of the Semitic name *pe*, 'mouth,' whereas in the Egyptian character we have what may be regarded as a representation of the teeth. At the time when the Semitic letters received their names some vestiges probably survived of the vertical bars of the window-shutter, which would account for the Semitic name, the explanation of which is otherwise so difficult.

ב (*b*).—The Egyptians had two signs for *b*, the 'leg,' , which is the normal sign, and the 'crane' . In this case the less usual symbol must be regarded as the prototype of the Semitic letter. The reason may be that the sound of the first symbol seems to have been nearer to *v* than to *b*; the 'crane' being used as the equivalent of *beth* in the transliteration of several Semitic names, such as Berytus (Beyrout) and Khirba.[1] The Hieratic trace of the 'leg' would moreover be easily confused with that of some other letters, such as the 'chick,' and the 'arm,' and would therefore be inconvenient for adoption.

The Semitic character differs from its Hieratic prototype in having acquired a closed loop. The closed form is so much easier to write, that the change presents no difficulty. But there is a curious bit of indirect evidence which seems to show that the Semitic

[1] M. Mariette's alphabetic liturgies, already cited, also indicate that there were two Egyptian *b* sounds, one of which could be represented only by the 'crane.'

letter in its earlier form was open, something in the shape of an ʃ. The Greek alphabet used at Corinth, one of the earliest Phœnician colonies in Hellas, must have been derived from a type of the Semitic alphabet more archaic than that which appears on the Moabite stone. Now, in the old Corinthian alphabet the letter *beta* is not closed, but open ɾ, its form being almost identical with the Hieratic prototype.

The Palatals.

The prototypes of the three Semitic palatals, *gimel*, *kaph*, and *qôph*, ought to be found among the four Egyptian palatals, namely, , commonly called the 'throne,' which seems to be a picture of an apron; the 'angle' , which is probably a picture of a knee; the 'bowl' , and its homophone, the uplifted 'arms' . The last of these symbols may be set aside, being comparatively rare on the Egyptian monuments, and bearing no resemblance to any of the Semitic palatals.

In writing Egyptian words the three remaining symbols are to some extent used interchangeably, but in the transliteration of Semitic names a distinct tendency may be detected to appropriate one of the three Egyptian signs as the special equivalent of each of the three Semitic palatals.

כ (*k*).—The letter *kaph* is, with hardly an exception, transliterated by the 'bowl,' as in the words *kafr*

'village,' and *melek*, 'king;' as well as in proper names, such as Cush, Acre, and Taanach. The only exception that has been noted is Carchemish. The resemblance of the Semitic form to the Hieratic is sufficiently close, and presents no difficulty.

ק (*q*).—The Semitic *qoph* is usually transliterated by the 'angle' or 'knee,' as in the case of Karta, 'city,' and of proper names, such as Ascalon, or Shishak. The Hieratic and the Semitic are both characterized by a loop and a tail.

ג (*g*).—Apparently the Egyptians had no sound in their language which was exactly equivalent to *g*. Accordingly we find the Semitic *gimel* transliterated by any of the four Egyptian palatals, but most frequently by the 'throne' , as in the names Eglon and Migdol. The decided preference shown for this transliteration seems to indicate an approximation in the sounds.

The forms of the Hieratic and Semitic letters differ considerably, the lower appendage of the Hieratic having disappeared. The principle of 'least effort' would suffice to account for this change, and it will be shown in the next chapter that there are reasons for supposing that the primitive Semitic form may have agreed with that of the Hieratic letter.

The Dentals.

The problem is here almost the same as in the case of the palatals. The Egyptians possessed four nearly

homophonous dental signs, which were used almost interchangeably.[1] For the needs of Semitic speech, however, three distinct dental signs were required. Of the four Egyptian characters, the semicircle ⌓ may be put aside, as its extremely small size makes it difficult to connect it with any of the Semitic letters. Three Egyptian signs are therefore left from which to select the prototypes of the three Semitic dentals.

ד (*d*).—The 'hand' seems to represent the weakest of the dental sounds, and is the character which is most commonly used to transliterate the Semitic *daleth*, as in the names of Jordan, Judah, Edom, and Migdol. The derivation of *daleth* from the 'hand,' which is thus suggested by the phonetic probabilities, derives strong support from the resemblance of the Semitic character , to the form , which is found in the Papyrus Prisse. In both we have a triangle with a short tail, the chief difference being that the one is rounded and the other angular, a change which would necessarily be caused by the difference in the writing material —papyrus in the one case, and stone in the other.

ט (*tt*, *ṭ*).—The letter *teth* is rare, and does not occur on the Moabite stone. On the whole, M. de Rougé

[1] According to Hincks, Lepsius, and de Rougé, there was, in Egyptian, really only one dental sound, corresponding to *t*, or to some sound between *t* and *d*. Brugsch, however, thinks it possible to make a distinction in the usage, and he believes that the Egyptians, like the Semites, had three distinct dentals.

inclines, from a comparison of the early forms, to affiliate it to the 'tongs' . Brugsch believes that the Egyptian letter was pronounced *lith*pingly, which would lend probability to this identification.

ת (*t*, *th*).—The sign which resembles a 'noose' or 'lasso,' but which was probably intended as a picture of the 'tongue,' would be left as the prototype of the letter *tau*. Too much importance must not be attached to de Rougé's comparison of the Hieratic and the Sidonian , neither of these being exactly the normal forms.

The Liquids.

The affiliation of the liquids presents less difficulty than that of the dentals or the palatals. The identifications both of the sounds and of the forms are for the most part free from ambiguity.

מ (*m*).—This sound is represented in the Egyptian alphabet by three symbols. The 'owl' , which is the normal character, was in constant and universal use from the earliest times; the 'cave' is less common, while the 'sickle' is little more than a syllabic sign (*ma*) of limited application. A comparison of the forms leaves no doubt that the normal Egyptian character was the prototype of the Semitic letter, the Phœnician differing from the Hieratic chiefly in the angularity consequent on the change from papyrus to stone.

נ (*n*).—In this case again there can be no uncertainty. The Egyptians had three homophonic signs for *n*; the 'water-line' , which is normal and universal, the 'red crown of lower Egypt' , which does not make its appearance before the time of the new Empire, and the 'vase' ʊ, which is a sign of limited use. These considerations restrict our choice to the 'water-line.' In the Semitic letter, as in the Hieratic prototype, the undulations of the Hieroglyphic character have nearly disappeared. Contrary, however, to the usual rule, the Semitic letter exhibits a form not quite so simple as that found in the Papyrus Prisse. In other cases, such as *pe* and *gimel*, unnecessary strokes have disappeared; but here an additional stroke seems to have been added, in contravention of the 'law of least effort.' This exceptional development ought to be capable of explanation. It is possible that the Semitic letter may have been derived from an Egyptian form , which retained some vestige of the initial undulation of the 'water-line.' More probably, however, the additional stroke was added in order to distinguish the letter *nun* from *gimel* . This conjecture is confirmed by the name, *nun*, a 'fish,' which the letter bears. The Hieratic character is certainly more like a fish than the Moabite . This suggests the conjecture that the Semitic name was given to the letter before it acquired the additional stroke. Here then, as in the case of *pe*, the Papyrus Prisse offers an explanation of the Semitic name which is not supplied by any Semitic

form which we happen to possess. An incidental argument of unexpected cogency is thus supplied in favour of de Rougé's hypothesis.

ר (*r*).—In Egyptian, as in some other languages, no clear distinction existed between *r* and *l*. The actual sound probably hovered between the two. This sound, whatever it was, is represented on the monuments by two symbols, apparently strict homophones, the 'mouth' , and the 'lioness' . They are used, almost indifferently, as the equivalents of either *resh* or *lamed* in Semitic words. The Semitic sounds being distinct, separate symbols were required to represent them. In adapting an Egyptian alphabet to Semitic use this might be done either by specialization or by differentiation. De Rougé considers that the two Egyptian homophones were specialized, the 'lioness' being appropriated as the symbol for *l*, and the 'mouth' for *r*. The Hieratic equivalent of the 'mouth' is , which is obviously the prototype of *resh* ר, the change from the rounded outline of the Papyrus Prisse to the angular form of the Moabite stone being due, as in other instances, to the difference in the materials used for writing.

ל (*l*).—The origin of *lamed* is not so easy to determine. The 'lioness,' which de Rougé regards as the prototype of this letter, was decidedly rare before the time of the eighteenth dynasty, and the resemblance of the earlier forms to the Semitic letter is not conspicuous. Awaiting the discovery of further epigraphic materials,

which may possibly supply transitional forms, it becomes necessary to fall back on analogies derived from the later Hieratic writing. The Moabite letter is not much like the figure , which we find in the Papyrus Prisse. A later form of the character is . We have in the Hieratic of the nineteenth dynasty, and this becomes in the Demotic. Thus the picture of the 'lioness' was gradually reduced to a representation of the chest and the fore-legs; the tail and the hind-quarters being denoted by a stroke and a dot, and finally by a dot only. In the absence of more direct evidence, it seems legitimate to assume that the Semitic letter may have had an analogous history, and that it gradually lost those elements which tended to disappear in the Egyptian character, retaining those which tended to remain.

It must be owned that de Rougé's explanation of the origin of *lamed* rests more upon conjecture and less on epigraphic evidence than is the case with other letters. There is, however, an alternative hypothesis which appears to have escaped his notice. It seems not improbable that both of the Semitic letters, *r* and *l*, were obtained by differentiations of the normal Hieratic character, the rare homophone of the 'lioness' being passed over altogether. It is plain that the Hieratic , which is commonly used to denote both *r* and *l*, would require little more than a change of position in order to give rise to the two forms and , which may be taken as the early types of the letters *resh* and *lamed*.

This solution of the difficulty is supported by certain considerations, presently to be adduced, which tend to show that the primitive Semitic alphabet may have originally possessed only a single sign to denote the sounds of *r* and *l*.

The Sibilants.

The difficulty with regard to the affiliation of the liquids is due to the fact that the Egyptians had only three sounds, while the Semites possessed four. It is the same with the sibilants. Signs for the four Semitic sibilants, *s*, *sh*, *z*, *ts*, had to be obtained from Hieratic characters which represented only three distinct sounds.

ש (*sh*).—The 'inundated garden,' , a picture of papyrus or lotus plants growing out of water, is invariably used to transliterate the Semitic letter *shin*, as in the case of the proper names Carchemish and Bethshan. The 'tank,' , being only a late homophone, need not be taken into account. The Phœnician may be easily identified with the Hieratic if we suppose that, as in the case of *gimel*, the Semitic letter has been simplified by the omission of a troublesome and unnecessary appendage, which seems to be little more than a mere flourish, and may perhaps be somewhat exaggerated by the scribe who wrote the Papyrus Prisse.

ס (*s*).—This sound is represented by two hieroglyphic homophones, the 'chair-back' , and the

'crotchet' . The Hieratic forms limit the choice[1] for the prototype of *samekh* to the 'chair-back.'

 (*ts*).—The Egyptians denoted their dental sibilant *t'* by three homophones, the 'snake' , the 'flame' , and the 'duck' . Among these the prototypes of the Semitic letters *tsade* and *zayin* must be sought. Of the Egyptian characters, the snake is the most common, and is constantly used to transliterate the Semitic *tsade*. The resemblance of the Hieratic character to the Phœnician letter is so close as to leave no doubt as to the identification.

(*z*).—For *zayin* we have to choose between the 'flame' and the 'duck.'[2] The transliterations give us little aid, owing to *zayin* being among the rarest of the Semitic letters, the only proper name which can be adduced being Gaza, in which the *z* is represented by the 'flame.' De Rougé, relying on the later Eshmunazar form, with which alone he was acquainted, considers the 'duck' as the most probable prototype. So far as the evidence of form goes, it may perhaps be held that the evidence of the Moabite stone is in favour of the

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[1] The Semitic letter bears a very striking resemblance to the hieroglyph of the 'plant' . This, however, is rather a syllabic (*su*), than a strictly alphabetic character, and the resemblance of the forms disappears to a considerable extent in the Hieratic trace.

[2] Lepsius is certainly wrong in excluding the 'flame' from the Egyptian alphabet, and considering it only as an ideogram; but, on the other hand, the 'duck' is almost as much a syllabic as an alphabetic character.

'flame.' The Baal Lebanon inscription, on the other hand, is rather for the 'duck.' Future discoveries of epigraphic materials will doubtless set at rest this, as well as some other doubtful points.

The Semivowels.

The Semites had two semivowels, *vau* and *yod*.

ו (*v*).—In the Hieroglyphic alphabet the horned asp, or 'cerastes,' , had the value of *f*, and also of *v* and *u*. It would therefore serve as the prototype of *vau*. The striking resemblance between the Moabite and the Hieratic leaves little doubt as to the correctness of the identification.

י (*y*).—The letter *yod* must be referred to the hieroglyph called the 'parallels' , which has the value of *i* and *y*. This character is a strict homophone, and probably only a variant of the 'double reed' , which is used to transliterate *yod* in the name of Joppa. The bar or kick at the bottom of the Semitic letter may be explained as a development which arose in order to prevent confusion with *kaph*. The germ of this bar may be detected in a slight thickening or knob which occasionally appears in the Hieratic trace, . If any doubt existed as to the affiliation, it would be removed by the correspondence in the size of the Egyptian and Semitic characters. In Semitic inscriptions the extremely small size of *yod* is very noticeable. On the Eshmunazar sarcophagus its height is only one-fourth

of that of some other letters. This characteristic was transmitted to the Greek and Hebrew alphabets. Hence among the 'jottings' of the philologist's note-book is the curious way in which the proverbial minuteness of this letter has given us an English verb and its derivatives.[1] The persistency with which the relative sizes of letters are preserved is very remarkable. The smallness of our English letter *i* is a peculiarity which has been transmitted for 6000 years from its remote Egyptian prototype, and is as noticeable on an Egyptian obelisk as in an English book.

The breaths.

The Egyptians had three breaths, to denote which seven signs at least could be employed. The three sounds were—

1. The soft breath, or indefinite vowel sound, of which the homophonous symbols were the 'reed,' , the 'eagle,' , and the 'arm,' .

2. The aspirate, or hard breathing (*h*), expressed either by the 'mæander,' , or by the 'knotted cord,' .

3. The guttural aspirate (*kh*), of which the signs are either the 'sickle' , or a hieroglyph usually called the 'sieve,' , which was probably the symbol of 'darkness,' denoted by a picture of the dark moon.

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[1] See Matthew v. 18.

The Semites, on the other hand, had four breaths, expressed by the letters *aleph*, *he*, *cheth*, and *'ayin*.

An examination of the transliterations of Semitic names gives the following results:—

aleph is normally transliterated by the 'reed,' and less usually by the 'eagle.'

he corresponds most frequently to the 'mæander,' but sometimes to the 'knotted cord.'

cheth is usually rendered by the 'sieve,' or the 'sickle,' but occasionally by the 'knotted cord.'

'ayin does not correspond strictly to any Egyptian sound, but seems to be nearest to the 'arm.'

Guided by these correspondences, the probable prototypes of the four Semitic letters have to be selected from among the seven Egyptian characters. The choice has to be determined chiefly by the approximation of the forms.

ח (*ch*).—In the case of the letter *cheth* there is no ground for hesitation. The Hieratic representation of the 'sieve' , if written, as in other cases, in an angular instead of a rounded form, gives the outline of the Semitic letter .

ה (*h*).—The letter *he* corresponds to the 'mæander' and the 'knotted cord.' The Hieratic forms show that the former must be taken as the prototype. In the Papyrus Prisse there are two types of this character; one, which is comparatively rare, is open at the bottom, , and corresponds to the Moabite . It is much more usual, however, to find the character

completely closed. The name of the Semitic letter, which is generally supposed to mean a 'window,' would indicate that the primitive form of the letter agreed with the more usual Hieratic trace. This conjecture is curiously confirmed by the evidence afforded by the early inscriptions of Corinth, which, as we have seen in the case of *beta*, occasionally preserve alphabetic forms of a more archaic type than those found on the Moabite stone itself. Now in the primitive alphabet of Corinth we find, instead of the usual form of *epsilon*, a closed character 𐌴, which is nearly identical with the form of the 'mæander' which is most usual in the Papyrus Prisse.

𐤀 (*a*).—For the prototype of *aleph* we have to choose between the 'eagle' , and the 'reed' . Although the second of these is the most usual equivalent of the Semitic letter, a comparison of the forms seems to justify de Rougé in his selection of the 'eagle' as the probable prototype.

𐤏 (*'a*)—The Egyptians did not possess the peculiar guttural breathing denoted by the letter *'ayin*, which is found only in Semitic languages. The 'arm' was used as the nearest Egyptian equivalent, but there is no appreciable resemblance between the Semitic and Hieratic forms. De Rougé asserts confidently that it is as certain that the prototype of the Semitic character is not to be discovered in the Egyptian alphabet as that the sound itself did not exist in their language.

M. Lenormant has suggested that this letter may be

regarded as an ideographic picture invented by the Semites, the symbol ○ being regarded, as the name *'ayin* suggests, as the picture of an 'eye.' It is worthy of note that the only instance in which de Rougé has failed to find an Egyptian prototype for a Semitic letter is the very case in which on phonetic grounds such a failure might have been expected.

The foregoing condensed outline of de Rougé's argument may now make it possible to form an estimate of the value of his results.

It will probably be admitted that with respect to sixteen of the Semitic letters his identifications with the suggested Hieratic prototypes are reasonably satisfactory. In the remaining cases his conclusions may be deemed open to correction on the discovery of additional epigraphic materials.

Considering how imperfect are the available data, and how vast is the interval of time which separates the Moabite stone from the Papyrus Prisse, it would be strange indeed if no such uncertain cases should occur, but the doubtful identifications can hardly be said to form such a considerable proportion of the entire number as to throw any serious doubt upon the theory as a whole.

§ 6. OBJECTIONS TO DE ROUGÉ'S HYPOTHESIS.

De Rougé's hypothesis having now been placed before the reader, the objections which have been brought against it remain to be considered.

It would be unreasonable to expect that so notable an achievement should, without cavil or hesitation, be universally acclaimed. Such fortune has hitherto befallen no discoverer. Although de Rougé's theory has been accepted by the great majority of experts, including names of such authority as those of Max Müller, Sayce, Lenormant, Maspero, Ebers, Euting, Fabretti, Peile, and Mahaffy, nevertheless full weight must be given to the hesitations and objections which have been expressed in certain quarters.

The most formidable antagonist who has entered the lists is Professor Lagarde, who has expressed in no measured terms[1] his dissatisfaction with the arguments of de Rougé's book. Professor Robertson Smith owns to certain hesitations,[2] while Mr. R. S. Poole has stated in a succinct and accessible form the objections which de Rougé's followers have to meet.[3]

Professor Lagarde, as the strongest and fiercest of de Rougé's assailants, may be allowed the first hearing. His chief argument is that certain Semitic letters, such as *teth*, *tsade*, *q'oph*, and *'ayin*, denote sounds which, being peculiar to the Semitic languages, could not therefore have been represented in the Egyptian

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[1] He goes so far as to say, "Ich bin selten so enttäuscht wie durch dieses Buch, das seine These in mindesten nicht bewiesen hat."—Lagarde, *Symmicta*, p. 113. (Göttingen, 1877.)

[2] *Encyclopædia Britannica*, Art. *Hebrew.*

[3] *Ibid.* Art. *Hieroglyphics.*

alphabet. Hence, he alleges, the Semitic letters representing these peculiar sounds cannot have been obtained from Egypt, but must have been invented by the Semites themselves. A wider acquaintance with the general history of alphabets would have shown Professor Lagarde the fallacy of this argument. When alphabets are transmitted from one nation to another the adopted characters are constantly used to denote approximate rather than identical sounds. Thus very different sounds are represented by the same Roman letters in Spanish, Italian, and Wallachian; or in Welsh, Polish, and Hungarian. If Professor Lagarde's argument were valid it would actually prove that the Greek alphabet could not have been obtained from the Phœnician. The Semitic sounds represented by *teth* and *'ayin*, for example, do not exist in any Aryan language, yet there can be no doubt whatever that the Semitic symbols for these peculiar sounds are to be identified with the Greek letters *theta* and *omicron*. The argument which Professor Lagarde produces with so much confidence falls therefore to the ground.

Professor Lagarde lays hardly less stress on a second objection, which Mr. Poole considers to have "great weight." We have already seen (p. 85) that the names of the Semitic letters do not refer to the objects represented by their hieroglyphic prototypes. How is it, for instance, that the name *beth* should mean 'house,' if the character was obtained from the Egyptian picture of a crane? It is difficult, Mr. Poole

thinks, to imagine such a renaming. Here again we must be guided by analogies drawn from other alphabets. The theoretic difficulty of imagining a renaming disappears in face of the fact that in the case of other alphabetic transmissions the letters are constantly thus renamed. The Russian letters, which were borrowed in the 9th century from the Greek alphabet, have lost the familiar Greek appellations, and bear new names significant in Slavonic speech. Thus the letter *b* is not called *beta* but *buki*, which means a 'beech,' while *d* has lost the old name of *delta*, and has acquired that of *dobro*, an 'oak.' The Scandinavian Runes, which were derived at an earlier period from the Greek alphabet, have also been systematically renamed. So again the Roman uncials, which constitute the Irish Bethluisnion alphabet, received Keltic tree names, while in another Irish alphabet, which is called the Bobeloth, the names are taken from the Bible history. Thus the analogy of other alphabets proves that the invention of new names, at once significant and acrologic, is actually more probable than the transmission of the old appellations. The picture alphabets of our nurseries,[1] which are found to make it easy for children to learn their letters, sufficiently explain the object and mode of such renamings.

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[1] Such as the familiar rhymed alphabet which begins—

A was an Archer, who shot at a frog;
B was a Butcher, who had a great dog.

It may be admitted that the objection urged by Professor Lagarde and Mr. Poole might have some weight if the Semitic alphabet had been derived immediately from the Egyptian Hieroglyphics, in which the pictorial intention is unmistakeable. But in the Hieratic writing the resemblance to the primitive pictures has disappeared, and the Egyptian names, being meaningless to Semitic scribes, would be difficult to remember, and translations of them would no longer be acrologic. Hence new acrologic names, significant in Semitic speech, would naturally be invented, as in other borrowed alphabets, with the object of making it easy to connect the forms and values of the several characters. This objection, which has been deemed so serious, may therefore be dismissed, as destitute of any real validity.

In the next place, Professor Lagarde believes that the Semites, if they had obtained their letters from Egypt, would have borrowed them from the Hieroglyphic rather than from the Hieratic characters. Although such conjectures are vain in the face of actual facts, it may be held that the antecedent probabilities are wholly the other way. The Semitic alphabet must have originated among a colony of Semitic aliens established in lower Egypt, either as slaves, traders, frontier guards, or conquerors. In any case the Semitic intruders would be strangers to the religion and the language of the Egyptians. It would therefore be more likely that they should make

use of the cursive and easy Hieratic, which was ordinarily employed in Egypt for secular and commercial purposes, than that they should adopt the difficult sacred script which was reserved by the Egyptian priesthood for monumental and religious uses. This supposition is confirmed by the singular absence of any Hieroglyphic monuments which can be assigned to the three dynasties of Semitic kings.

Another objection, brought forward by Mr. Poole, is geographical. Since the oldest specimens of Semitic writing belong to Asia, the presumption, it is urged, is in favour of its Asiatic origin. Putting aside the difficulty that there is no indigenous Asiatic system of writing from which the Semitic alphabet can plausibly be derived, it must be remembered that only a very few years ago the earliest known monuments of the Semitic alphabet appertained not to Assyria and Moab, but to Malta and Sardinia; yet who would on that account propound a European origin? In fact any mere negative argument from the absence of documents is not conclusive. Their preservation is very much a matter of accident, and the absence of early Semitic records in Egypt may any day be supplied by the discovery of a papyrus or a tomb.

The next argument to be met is that the range of choice among the Egyptian symbols is so wide—there are so many alternative forms from among which to select prototypes for the Semitic letters—that any result is necessarily vague and unsatisfactory.

This objection is hardly a fair comment on de Rougé's method. The process which he adopts is rigorous and strict. If, like some of his predecessors, from among the four hundred Egyptian phonograms he had arbitrarily selected twenty-two forms for comparison with the twenty-two Semitic letters, the facility of the process would have accorded with the futility of the results. De Rougé's method is wholly different. He puts aside, absolutely, the whole chaos of the miscellaneous Egyptian symbols, and confines himself to the so-called 'Egyptian Alphabet,' which, according to the tradition preserved by Plutarch, consisted of only twenty-five letters. It is from the standard Egyptian alphabet of twenty-five symbols, as now accepted by Egyptologists, that de Rougé attempts to derive the twenty-two Semitic letters. He first sets aside four of the Egyptian breaths and vowels, vowels being absent from the Semitic alphabet. Of the remaining twenty-one characters he identifies no less than eighteen with the eighteen Semitic letters which corresponded to them most closely in sound. In three cases only, *beth*, *zayin*, and *aleph*, does he pass over the normal symbols, and resort to a homophone, while the one Semitic letter for which he fails to find an Egyptian prototype is the symbol of a Semitic sound which the Egyptians did not possess. There can therefore be no ground for the imputation that de Rougé's scheme is fanciful or arbitrary, as in eighteen cases out of twenty-two the prototypes of the Semitic

letters are found to be exactly those Egyptian characters from which on theoretical grounds we might expect them to descend.

Mr. Poole also objects that "the Hieratic forms vary, like all cursive forms of writing, with the hand of each scribe. Consequently the writer who desires to establish their identity with Phœnician can scarcely avoid straining the evidence."

In reply to this it may be said that the same objection applies in a far greater degree to all other attempts to affiliate cursive scripts. To de Rougé's attempt it is singularly inapplicable, as he is compelled to rely almost exclusively on a single MS., the Papyrus Prisse, written in a hand remarkably bold, uniform, and characteristic. But to obviate any allegation that de Rougé may unconsciously have strained the evidence, I have set aside his facsimiles, and have traced from the Papyrus Prisse itself a whole series of the forms of the Hieratic characters. Where any variations can be detected I have given engravings of the chief types in the Table (p. 99). The reader will therefore be able to judge for himself how far this objection can be justified.

One only of Professor Lagarde's objections remains to be considered, namely, the want of adequate resemblance between the Semitic letters and their alleged prototypes. This objection, if it can be sustained, must be considered fatal to de Rougé's hypothesis, and demands therefore the fullest consideration.

Looking at the Hieratic and Phœnician alphabets which are put side by side in the Table on p. 99, or if the facsimile from the Papyrus Prisse on p. 97 be compared with the writing on the Moabite stone, of which a reduced facsimile is given on page 208, it must be admitted that there is a conspicuous dissimilarity in the appearance of the two scripts. An attentive examination will however show that these differences, great as they seem, are superficial rather than real.

It is a rule of very general application that a national script is liable to assume a special type of its own. It tends, for example, to become either upright or inclined, minute or bold, regular or irregular, simple or complicated. It is apt to acquire or to lose loops, hooks, and tails; to eschew forms either curved or angular, to prefer either straight lines, triangles and squares, or else curves, ovals and circles; in short, to become either geometrical or cursive. By a glance at a printed page, and without examining a single word, it is easy to recognize by their general characteristics either Greek or Latin; Hebrew or German; Sanskrit or Pali; Tamil, Ethiopic, Armenian, or Javanese.

Hereafter we shall meet frequently with instances of this general tendency of writing to acquire a special national type. Hence the considerable change in superficial aspect which we note in passing from the Hieratic to the Semitic writing is no strange phenomenon, but a circumstance entirely in accordance

with the ordinary law which governs such transmissions. It would be altogether exceptional if the Hieratic and Sémitic writing did not, each of them, exhibit a distinct specific character.

Now looking broadly at the two scripts, Hieratic and Moabite, it is not difficult to specify their distinctive characteristics. In the first place we see that the Semitic writing is distinguished by greater symmetry and greater simplicity. Like soldiers on parade, the characters in the alphabetic line have been 'dressed.' The letters have become more regular and uniform; they have become more angular, more firm, and more erect; the differences in relative size have diminished; slanting characters such as *vau*, *kaph*, and *tsade*, are nearly vertical, and horizontal characters such as *he* and *samekh* are more upright. Not only is there a more general symmetry, but a greater simplicity of outline, the complicated and difficult characters especially being straightened or curtailed.

A considerable number of these distinctive peculiarities are due merely to the nature of the writing material. The early Hieratic writing seems to have been traced with thick glutinous ink on papyrus, an abundant and cheap material, by means of a pen, or rather a brush made of the soft stump of a reed. The characters are consequently thick, bold, free, and rounded. The Semitic letters, on the other hand, were laboriously carved with a chisel upon stone, a costly and difficult material—the words were "graven with an iron pen upon the rock for ever."

The result of this change from a cursive to a lapidary type is that the characters are more regular and more delicate. The rounded and flowing Hieratic forms become stiff and angular. The curved sweeping tails which are so characteristic of the Papyrus Prisse reappear on the Moabite stone as nearly straight and rigid lines, as in the case of *vau*, *tsade*, *daleth*, *q'oph*, and *resh*; the closed ovals become either triangles, as with *daleth* and *resh*, or squares, as with *cheth*, or open angles, as with *kaph*. Curved lines have been straightened, as in the case of *vau*, *zayin*, *mem*, and *shin*. Forms characterized by bold curves, so easy to write but so difficult to engrave, have been simplified by the avoidance of needless undulations, as in the case of *aleph* and *zayin*. Some of the more complicated characters have been simplified by the omission of a portion of the letter, sundry troublesome appendages, unnecessary survivals from the Hieroglyphic pictures, having dropped off. In this way, by a sort of natural atrophy, the final portions of *gimel*, *lamed*, and *shin* have disappeared.

The foregoing changes are all in the direction of least effort." On the other hand, as has been shown in the last section,[1] three letters have been differentiated, in order to distinguish them from other letters to which they bore an inconveniently close resemblance. The thickened tail of *yod* developed into a sort of

[1] See pp. 103, 107, 112, supra.

kick, , so as to distinguish it from *kaph*, . An additional stroke was acquired by *nun*, , apparently to distinguish it from *gimel*, . This involved a change by correlation in *beth*, the head of which became a closed loop, , instead of , to distinguish it from *nun*. The uncompleted loop in the Corinthian *beta*, , serves to mark this change as one of comparatively late introduction.

Hence it appears that the alleged dissemblances, both general and specific, between the Hieratic and Semitic characters can be accounted for, and are not greater than might be reasonably expected. Indeed the real matter for surprise is not that the resemblance should be so small, but that it should be so great. The interval of more than a thousand years which separates the Moabite stone from the Papyrus Prisse supplies ample time for the development of even greater changes in the forms of the letters than those that have taken place. The differences are not so great as those which have grown up in a much shorter time between the Roman minuscules *a*, *b*, *d*, *e*, *g*, *r*, or the Greek minuscules α, γ, δ, ζ, ξ, σ, and the capitals out of which they were developed. Or if the Hieratic of the nineteenth dynasty be compared with the Demotic of the twenty-second, which grew out of it, the changes of form will be found to be greater than in the case of the early Hieratic and the Semitic, though the interval which separated them is not so great by several centuries. If de Rougé's theory were al-

together baseless we might expect to find not more than two or three colourable resemblances between the Semitic letters and their Hieratic homophones. But the correspondencies of form which exist are too close, too numerous, and too systematic to be accounted for on any hypothesis of merely accidental resemblance. With hardly an exception de Rougé is able reasonably to deduce the forms of each of the Semitic letters from an Egyptian prototype, selected, not arbitrarily, but in strict accordance with the laws of transliteration which are found to exist between the two languages. More than this can hardly be demanded.

The objections which have been urged against de Rougé's theory have now been very fully examined. It would appear that there is no difficulty which can be considered fatal to his argument—no objection to which a reasonable answer may not be made.

The only real difficulty is the fact that the available evidence is not so copious as might be desired. So far as it goes it is entirely in de Rougé's favour, but it must freely be acknowledged that the epigraphic materials are neither continuous nor complete. This can be no matter for surprise, knowing as we do the chances on which the preservation of documents depend. We know, for instance, that the Hyksos, a Semitic race, ruled in Egypt for 500 years, yet they left behind them hardly a trace of their existence. We know also that at the beginning of the new empire the Phœnicians had established a great trading settlement

in the Delta, of which however not a single monument survives. It is by the merest accident that the Papyrus Prisse has been preserved—and without this frail fragment what would really be known of the early Hieratic writing?—yet the Papyrus Prisse must be the surviving representative of an extensive Hieratic literature.

The missing links in the chain of evidence may any day be supplied by the discovery of more complete materials—a single Papyrus belonging to the Hyksos period, or a Semitic inscription earlier by a century or two than the Moabite stone, would probably set at rest many doubtful points. A generation ago no approximate solution of the problem of the origin of the alphabet would have been possible, since neither the Papyrus Prisse nor the Moabite stone had been discovered. It is not unreasonable to conjecture that a generation hence the great gulf of twelve centuries which still separates these records may be still further narrowed by fresh discoveries.

In the foregoing pages I have endeavoured fairly to state de Rougé's argument, and to give full weight to every objection which can be urged against it. The reader must now form his own estimate of the force of the argument on either side. He will, I believe, arrive at the conclusion now so generally accepted, that the thesis as to the Egyptian origin of the Semitic alphabet may at all events be provisionally adopted. Not only is it on *a priori* grounds the probable

solution, not only does it agree with the ancient tradition, not only does it supply a possible and reasonable explanation of the facts, not only is it confirmed by all sorts of curious coincidences, but no objection has been urged against it to which a sufficient answer cannot be found.

In estimating the probabilities of the case a final consideration of great weight has to be taken into account. If we reject de Rougé's explanation of the origin of the alphabet there is practically no rival theory on which to fall back. There are only three other possible sources, none of which can at present be regarded in any higher light than as a mere guess. If the Semitic letters were not derived from Egypt they must have been invented by the Phœnicians, or they must have been developed either out of the Hittite hieroglyphics, or out of one of the cuneiform syllabaries.

The first alternative is the now exploded opinion of Gesenius and his school, that the Semitic alphabet arose out of an independent system of Semitic picture writing. This hypothesis will hardly be revived in face of our present knowledge of the immense slowness of the processes by which graphic systems are developed. Of such processes there are no traces. In the Semitic alphabet there are no vestiges of a prior syllabism, as in the Persian cuneiform alphabet. There are no survivals of the earlier ideograms, as in the Proto-Medic syllabary. In the Semitic lands there

are not, as in China, any ancient monuments which bear traces of earlier pictorial forms. If the Semitic alphabet originated among the Semites, there is none of the evidence which analogy would lead us to expect.

Another possible solution has found an able advocate in Dr. Deecke, who has attempted to derive the Semitic alphabet from the Assyrian cuneiform.[1] It is however the general opinion of scholars that this attempt has failed as conspicuously as that of de Rougé has succeeded. Not to speak of fatal difficulties of detail, which need not here be recapitulated, since they have been elsewhere urged,[2] and are still unanswered, we might reasonably expect, if the Semitic alphabet had been developed out of the Semitic cuneiform, to find transitional forms among the vast literary stores accumulated in the Assyrian libraries; and it would be strange that the convenient Semitic alphabet, if it was developed out of the Semitic cuneiform, should not also have replaced it.

A third hypothesis remains. No doubt it is within the bounds of possibility that Hittite monuments may yet be discovered and deciphered which may supply a pedigree for the Semitic alphabet. Here again we

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[1] Deecke, *Der Ursprung des altsemitischen Alphabets aus der neuassyrischen Keilschrift*, in the *Z. D. M. G.* vol. xxxi. pp. 102—116 (1877).

[2] See the articles by Prof. Sayce and myself, and Dr. Deecke's reply, in the *Academy* for June 23rd, July 28th, and August 4th, 1877.

are encountered by the same absence of evidence and the same absence of transitional forms. If, indeed, as will probably be found to be the case, the syllabary of Cyprus and Asia Minor prove to be the syllabic development of the Hittite hieroglyphics, then the immediate prototypes of the Semitic letters ought to be found among the Cypriote syllabics, a solution which presents such obvious difficulties that no one has yet ventured to propound it.

Hence it appears that there is at present an entire lack of evidence in favour of any of the three possible alternative sources of the Semitic alphabet: the theories of Deecke and Gesenius must be rejected; while the Hittite hypothesis has not yet found an advocate.

At present therefore we have before us no rival theory whatever if we refuse to accept the possible and sufficient explanation which de Rougé has stated with so much learning and ingenuity. Till further evidence is put forward, it must therefore be held that de Rougé remains master of the field.

§ 7. THE CHRONOLOGICAL CONDITIONS.

From the nature of the case, only approximate conclusions can be formed as to the date at which the Semitic alphabet originated. The available evidence is partly external and partly internal.

The external evidence starts from the oldest

monument of Semitic epigraphy to which a definite date can be assigned. This is the Moabite stone, which affords a firm and unassailable standing ground. It proves, beyond controversy, that the Semitic alphabet was fully developed and established as early as the beginning of the 9th century, while to the practised eye of the palæographer it also indicates that alphabetic writing must have been in familiar use for a very considerable precedent period. M. Lenormant ably states the conclusions which may be drawn from the character of the Moabite writing. He says, "déjà l'écriture s'y présente avec un aspect comme fatigué et usé dans la forme de certains caractères, qui révèle plusieurs siècles d'usage antérieur de ce type graphique."[1]

From the wide diffusion of the Semitic alphabet at this early period a similar inference may be drawn. The lion weights from Nineveh, which bear the names of Assyrian kings who reigned during the second half of the 8th century, an engraved scarab found beneath the foundation of the palace of Sargon at Khorsabad, and the bronze vessel dedicated to the temple of Baal-Lebanon, which bears the name of Hiram, king of the Sidonians, are epigraphically of the same age, or nearly so, as the inscription of Mesha, while there are Greek inscriptions which must be assigned to a period not less ancient. If then, in the

[1] Lenormant *L'alphabet Phénicien*, i., p. 130.

8th century, the Semitic alphabet, already exhibiting signs of long continued usage, was customarily employed in localities so far remote from one another as Moab, Nineveh, Lebanon, Thera, and Corinth, we are compelled to assign its origin to a time prior by several centuries to the year 900 B.C.

This conclusion, based on epigraphical considerations, does not lack confirmation from historic sources. By necessity such evidence must be obtained mainly from the records of the Hebrew people. Without making any assumptions as to the authorship of the Pentateuch, and avoiding disputed questions as to the date and composition of the Hebrew Scriptures, topics the discussion of which would be foreign to the design of this book, it may yet be possible to arrive at results which may be admitted without controversy by critics of all schools. It may suffice to give here a condensed summary of the evidence, since it has been exhaustively set forth by Ewald.[1]

It would seem that as early as the commencement of the Hebrew monarchy alphabetic writing was known to the Hebrews, and was also a common possession of the neighbouring Semitic peoples. In proof of this proposition the following facts may be adduced.

More than a century before the date of the Moabite

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[1] Ewald, *Geschichte des Volkes Israel.* The references are to the third edition of the English translation.

stone we read that Hiram, king of Tyre, wrote to Solomon, and that David "wrote a letter to Joab."[1] At this time the Syrian nations possessed State annals.[2] This appears from numerous quotations given by Josephus[3] from the works of Dius, and Menander of Ephesus, writers who translated for Greek readers the works of Tyrian historians which had been compiled from the *tabularia* preserved in the temples of the Phœnician cities.

Edom also must have possessed similar records, for after its subjugation in the reign of David the Hebrews appear to have come into possession of Edomite annals reaching back to a remote antiquity. The long lists of the kings and dukes of Edom, who "reigned before there reigned any king over the children of Israel," are documents which bear no marks of oral tradition, but have the unmistakeable air of having been extracted from the State archives of Edom.[4]

The very ancient narrative in Genesis of the Kudurid invasion of Palestine, in which "Abram the Hebrew" is spoken of almost as an alien, just as a Canaanite historian might have described him, bears

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[1] 2 Samuel xi. 14.

[2] See Professor Sayce, in *Nature*, for Feb. 26, 1880, p. 404; Ewald, *Hist. Israel*, i. p. 52.

[3] Josephus, *Antiq.*, viii. 5, 3; viii. 13, 2; ix. 14, 2; *C. Apion.* i. 17 seq.

[4] Ewald, *Hist. Israel*, i., p. 52. See Genesis xxxvi. and 1 Chron. i.

all the marks of having been derived from some very ancient non-Israelitish source.[1] The incorporated note in the book of Numbers,[2] as to the contemporaneous foundation of the cities of Hebron in Canaan and Zoan (Tanis), in Egypt, seems also to be a fragment derived from some foreign historical work. That the Canaanites, as well as the Edomites and Hebrews, possessed historical or sacred books is implied by the fact that at the time of the Hebrew conquest the city of Debir, near Hebron, bore the name of Kirjath Sepher, the "city of Scriptures."[3]

MM. Lenormant and de Rougé attach considerable importance to the fact narrated in the poem of Pentaour, that the Khita-sira, the king of the Hittites, was accompanied by his historiographer at the great battle of Kadesh, and that the treaty with Rameses II., by which the campaign was brought to an end, was inscribed on a tablet of silver by the scribes of the Hittite king.[4] This fact supplies, it is true, positive evidence that the art of writing was known in Syria before the time of the Hebrew Exodus, but the recent discoveries of Hittite hieroglyphs at Carchemish disposes of the inference that these records were necessarily drawn up in the Semitic alphabet.

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[1] Genesis xiv. 13; Cf. Ewald, *Hist. Israel*, i., p. 52.

[2] Numbers xiii. 22.

[3] Joshua xv. 15. Cf. Duncker, *History of Antiquity*, i., p. 352.

[4] See Brugsch, *History of Egypt*, ii., p. 69.

There is abundant evidence that the Hebrews shared the knowledge of writing with the neighbouring Semitic tribes. Assuming no more than what will be generally admitted, that the first text of the Pentateuch is as old as the first decade of the reign of David, it cannot be denied that it incorporates fragments which reach back to a very much earlier period.

On linguistic grounds alone a very high antiquity must be claimed for the speech of Joshua,[1] which bears all the marks of having been derived from a nearly contemporaneous written source. As Ewald expresses it, "the prose is as rough and hard as a stone."[2] Certain songs of praise and victory[3] may, it is true, have been handed down by oral tradition for a considerable period, but as written memorials they must be regarded as very ancient, certainly pre-Davidic.[4] Ewald also pronounces from internal evidence that Jacob's blessing[5] cannot belong to a period later than that of the Judges. But we have documents for which an even higher antiquity may be claimed. Thus the census of the congregation,[6]

[1] Joshua xvii. 14—18.

[2] Ewald, *Hist. Israel*, i., p. 66, 67.

[3] See Numbers xxi. 14, 17, 27; Joshua x. 14; Genesis xlviii. 20—22.

[4] See Ewald, *Ib.*; Duncker, *Hist. of Antiquity*, i., p. 383.

[5] Genesis xlix. Ewald, *Hist. Israel*, i., p. 69.

[6] Numbers i., ii., iii., iv. and xxvi.

and the list of the stations in the desert, which is expressly ascribed to Moses,[1] are plainly very ancient documents, which have been incorporated into the narrative. No suspicion as to their genuineness can be entertained, and no hypothesis of transmission by oral tradition will account for their preservation.

The first text of the Pentateuch, which cannot be later than the time of David, represents the names of the tribes as engraved on the stones in the breast-plate of the High Priest, while his head-band was adorned with a plate of gold, inscribed, "Holy to Jehovah."[2] At the time when the Pentateuchal text was written these ornaments were evidently regarded as very ancient heirlooms, which were believed to have descended from the Aaronic period, and there are no reasonable grounds why such a claim should be disallowed. Still greater importance is to be attached to what the Hebrews certainly considered to be the oldest and most sacred memorial of their national existence. The account of the discovery, in the reign of Solomon, of the two tables of stone in the "ark of the covenant," taken in conjunction with the many scattered notices of the traditional awe with which this venerable relic of the wanderings was regarded,[3] have convinced some of the most sceptical inquirers that the two tables of the law

[1] Numbers xxxiii. 2. Cf. Ewald, *Hist. Israel*, i., p. 64.

[2] Exodus xxv. 7; xxviii. 9—38.

[3] 1 Kings viii. 9. Cf. Joshua iii.; 1 Sam. iv.—vii.; 2 Sam. vi.

must be actually assigned, as written documents, to the Mosaic age.[1]

We possess therefore a catena of evidence reaching back continuously from the date of the Moabite stone to that of the stone tables of the law, which tends to prove that a knowledge of writing was the common possession of the Hebrews and other Semitic races as early as the period of the Exodus.[2]

On the other hand, there is no trace of the use of writing in the Patriarchal times; all the indications point to the conclusion that it was unknown, the most important compacts and covenants being ratified by other methods.[3]

The external evidence therefore connects in an unmistakeable manner the date of the origin of the alphabet with the period of the sojourn of Israel in Egypt.

The internal evidence, which is in its way no less

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[1] "The two stone tables of the law are, according to all evidences and arguments, to be ascribed to Moses, but as the art of writing certainly cannot have commenced with the hardest writing materials, nor its use been restricted to a few words on one single occasion, the unquestionable historical existence of these tables necessarily implies a diffusion of the knowledge of writing among the more cultivated portion of the people."—Ewald, *Hist. Israel*, i., p. 48.

[2] "To whatever Semitic people we owe the alphabet, so much is incontrovertible, that it appears in history long before the time of Moses, and we need not scruple to assume that Israel knew and used it in Egypt before Moses."—Ewald, *Hist. Israel*, i., p. 51.

[3] For the evidence, see Ewald, *Hist. Israel*, i., p. 47.

definite and convincing, carries back the origin of the alphabet to precisely the same period.

Assuming that de Rougé has proved his case, certain chronological consequences are involved. We have seen that there were two distinct Hieratic scripts, differing from each other in essential particulars:—the Hieratic of the new empire, represented by numerous Papyri of the eighteenth and nineteenth dynasties, and the Hieratic of the early empire, represented by the Papyrus Prisse and two other fragments. It is an essential feature of de Rougé's hypothesis that to the earlier Hieratic alone can the Semitic alphabet be affiliated.

Thus the tails which are possessed by several of the Semitic letters, such as *daleth*, *nun*, *pe*, *qoph*, and *resh*, can only be explained as having been obtained from the characteristic tailed forms of the early Hieratic, these tails being either absent or inconspicuous in the Hieratic of the new empire.

In addition to these tailed forms there are other peculiarities which are equally decisive. A good instance is supplied by the hieroglyph of the shutter , which takes the cursive form in the Papyrus Prisse, and affords an obvious prototype of the Semitic letter *pe*, 𐤐. But when the new empire arose the early Hieratic form had gone out of use, and we find in the later Hieratic an entirely new cursive type , which plainly cannot have descended from the old Hieratic form, but must have been an independent

derivative from the monumental Hieroglyph. It is manifest that only the earlier Hieratic could have furnished the prototype of the Semitic letter. Other letters, as *shin*, *cheth*, *he*, *yod*, and *qoph*, would supply materials for a similar argument.[1]

On such grounds de Rougé maintains that the prototypes of the Semitic letters can only be found in the cursive writing of the early Egyptian empire.

This conclusion, based solely on palæographic evidence, refers the origin of the Semitic alphabet precisely to that period of Egyptian history at which a Semitic adaptation of the Egyptian writing was not only possible but extremely probable. These historical considerations are of too great importance to be dismissed with a mere passing allusion.

The researches of recent years have brought about a complete revolution in our knowledge of Egyptian history. The "ancient Egyptians" can no longer be regarded as men of one race and of one religion, possessing a continuous culture and a continuous political existence. It is easy to assign due importance to conquests and revolutions which come within the modern historic epochs. We do not fail to comprehend how wholly different is the Egypt of the Khedive from the Egypt of the Ptolemies. We fully understand that in the time of Cyril, Alexandria was a

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[1] The Hieratic forms of both epochs are given in de Rougé's *Mémoire*, and in his *Chrestomathie Égyptienne*.

Greek city, the seat of a great Christian Patriarchate. We know also that in less than three centuries the Cairo of the Khalifs had become the head-quarters of Islam, the focus of the culture, the science, and the literature, of the Arabian Semites. We realize the fact that within the space of the last two thousand years the civilization of Egypt, the meeting place of three continents, has been in turn African, European, and Asiatic; that the language spoken in its capital has been alternately Hamitic, Aryan, and Semitic; that its religion has been successively Polytheistic, Christian, and Mahomedan.

The significance of these vast revolutions is comparatively easy to appreciate, but it is by no means so easy for the historical imagination to grasp a conclusion no less certain, namely, that at the time of the Hebrew Exodus Egypt had already undergone a whole series of sweeping revolutions; that a succession of great empires, of diverse civilizations, and of hostile religions had by turns followed one another; that Khefu, and Apepi, and Rameses were representatives of races, and of modes of thought and action, as radically distinct as those represented by Esarhaddon, Cambyses, Alexander, Anthony, Athanasius, and Omar. The Egyptian revolutions which took place during the two milleniums which preceded the Persian conquest were in truth not less sweeping and subversive than those which have occurred since that event.

The explorations of M. Mariette have now revealed

to us a glimpse of the primitive Egyptian race—an unwarlike people, short in stature, regular in features, with neither the thick Nubian lips of the Ramesides, or the sharp Semitic profile of the Hyksos, but almost European in physical type. We find this primæval nation enjoying the inheritance of a peaceful civilization of untold antiquity; living under the protection of mild laws, and the sanctions of a religion of astonishing purity and beneficence. We find them in full possession of their marvellous hieroglyphic writing, and excelling all the succeeding races in their skill in many of the arts. This early empire, whose seat was at Memphis, has left us the pyramids as the imperishable monuments of its magnificence. With brief intervals of domestic disorder, and possibly of foreign invasion, this peaceful civilization had endured for more than 2000 years, when it was suddenly shattered by the inruption of a horde of fierce conquerors from the eastward deserts. Of alien blood, of harsh and unknown speech, with customs abhorrent to the conquered race, worshipping strange deities, which were regarded by the native Egyptians as impersonifications of the powers of evil, the Hyksos chieftains established at Avaris, in the eastern Delta, the seat of an empire which lasted for five or six centuries, actually as long as the duration of the western empire of Rome.

Unlike the other Egyptian empires, the successive dynasties of Semitic kings have left behind them no vast buildings, no temples, no pyramids, no painted

tombs, no colossal statues,[1] no hieroglyphic records. For the centuries during which their dominion lasted Egyptian history is a blank, the one monument of their empire which has endured—itself more imperishable than tablets of brass, or than pyramids of stone—is the ALPHABET, the veritable spoils of the Egyptians, which they must have held in possession when they were driven back into the deserts from which they came.

The dominion of the Hyksos was succeeded by the great "new empire," ruled by the imperial Nubian race of the Ramesides, who, as sub-kings, had slowly built up their power at Thebes, while the Shepherd Kings were ruling in the Delta. These warlike despots blotted out the dominion of the Shepherds, just as the Shepherds had effaced the peaceful empire which had preceded them; and the conquering arms of the new empire swept rapidly from the cataracts of Nubia to the banks of the Euphrates and the Orontes, and onward to the Cilician gates.

Bearing in mind these great landmarks of early Egyptian history, we perceive that the Semitic conquest of Egypt must have made the development of a Semitic script out of the Egyptian writing not only probable, but almost inevitable. The account which has been given in the preceding chapter of the

[1] At Boolak, and elsewhere, there are a few sculptures from Tanis which are attributed to the Hyksos period.

constantly repeated developments of the cuneiform writing, as it was transmitted from nation to nation of Western Asia, affords a strong presumption that the Semitic invaders, possessing no graphic system of their own, and ruling over Egypt for several centuries, would have been compelled to adopt, and to adapt to the needs of their own language, the most available form of the Egyptian writing. Analogy shows that there is a strong antecedent probability that what was done by Babylonians, Assyrians, Medes, Elamites, Alarodians, and Persians, was also done by the Shasu. Then, when the Semitic races were at last driven out of Egypt, they would infallibly retain the convenient script which they had adopted and developed.

The argument of the preceding pages may now be restated categorically as follows:—The Semitic occupation of Egypt lasted for several centuries. The origin of the Semitic alphabet is connected with this occupation by three distinct lines of evidence. The first is external. The sojourn of Israel in Egypt is nearly synchronous with the Hyksos period. Before the Hebrews went down into Egypt the art of writing was unknown to them: when they came out of Egypt they possessed it. The inference seems clear—it must have been acquired from the kindred races who occupied the Delta. The internal evidence points to the same conclusion. The forms of the Semitic letters were not derived from the monumental hieroglyphics, but from the cursive Hieratic. The Theban Hieratic,

which was developed out of the hieroglyphics after the expulsion of the Semites, does not explain the Semitic letters. Their prototypes can however be readily discovered in the Hieratic which was in use at the time of the Semitic conquest. To these arguments may be added another of an *à priori* nature. The analogies of other graphic systems show that under the circumstances the development of a special Semitic script was an almost inevitable event.

Every available line of argument points therefore to the conclusion that the Semitic alphabet originated during the period of the domination of the Semitic races in Egypt, and that it was simply an adaptation to the purposes of Semitic speech of the ordinary cursive writing of the Egyptians.

The possible date of the origin of the alphabet is therefore brought within definite limits. Its formation must have occupied a considerable period. It cannot have arisen before the arrival of the Semitic invaders in Egypt, that is, it cannot be earlier than the 23rd or 22nd century B.C. On the other hand, it cannot have originated after the second type of the Hieratic writing came into use at the time of the eighteenth dynasty, that is, it cannot be later than the 17th century. The possible limits lie therefore between the 23rd and 17th centuries, and there seems to be no reason why we should not provisionally accept the approximate date which has been proposed by de Rougé, and place it in or about the 19th century B.C., a date which would

allow the ample period of ten centuries for the considerable developments which are exhibited when we first meet with it in the Moabite inscription.

§ 8. THE GEOGRAPHICAL PROBABILITIES.

The foregoing argument leaves but little to add concerning the locality in which the alphabet originated, or the channel by which it was transmitted to the regions where it first makes its appearance.

That it was ultimately derived from Egypt cannot be doubted, but how far it took its actual form in Phœnicia or in Syria is another question. The probability, however, seems to be that its development, as an alphabet, was effected in Egypt.

The seat of the Semitic power was in the Eastern Delta. Here, in the pastoral borderland between the Bubastic branch of the Nile and the desert, we might reasonably suppose that it originated.

The names which are borne by the Semitic letters tend to confirm this conclusion. These names, as we have seen, bore no relation to the Egyptian names, having been bestowed by the Semites, on the acrologic principle, from real or fancied resemblances between the forms of the letters and the objects from which the names were taken. From these names we may therefore derive a certain amount of information as to the mode of life and the social condition of those who gave them.

From *aleph*, the 'ox,' and *lamed*, the 'ox-goad,' we learn that the people who gave names to the letters were not strangers to agriculture, while the triangular shape of *daleth*, the 'door,' suggests the curtained screen of the tent rather than the rectangular door of the house. A wholly nomad life is, however, excluded by the names *beth*, a 'house,' and *he*, a 'window'; while *cheth*, a 'fence,' and *samekh*, a 'post,' point to the same conclusion. On the other hand, *tsade*, a 'javelin,' indicates a knowledge of the chase. The name of *gimel*, the 'camel,' is of still greater significance. The camel does not appear to have been employed by the native Egyptians, either of the early or the new empire, and it is a very remarkable circumstance that not a single representation of it has been found among the large number of animals portrayed in the Egyptian paintings. It has been supposed that the camel was held in detestation by the Egyptians, as being the peculiar possession of the Shepherd tribes. We know, however, that it was used in the transport trade between Egypt and Syria,[1] and it must have been familiar to the Semitic population of the desert borderland of Egypt. Taken in conjunction with the name of the camel, the names *mem*, 'waters,' and *nun*, 'fish,' are important, since they prove that the givers of the names were not mere pastoral desert tribes, like the Edomites or Moabites, but were dwellers in a region

[1] Genesis xxxvii. 25. Cf. xxiv. 11.

of pools and streams such as the Egyptian Delta. On the other hand, there is not a single name which would imply any knowledge of navigation, or that would suggest the commerce and manufactures of the highly civilized communities which would be found in the great cities of Phœnicia.

It will be observed that the names of the Semitic letters are without exception consistent with the suggested origin of the alphabet in the Delta, among a people in a condition intermediate between the purely pastoral and the purely agricultural stages of civilization. The city life of a great commercial and industrial nation, and the desert life of mere nomad shepherds, seem equally to be excluded by the character of the names; while they agree entirely with what we must suppose to have been the condition of the Hyksos settlers.

Assuming then, as all the available evidence indicates, that the Semitic alphabet originated in the Delta during the dominion of the Hyksos, the further question arises as to the channel by which it was conveyed from Egypt to Western Asia.

The Semitic population of Egypt was far from being homogeneous. The Hyksos conquest gave opportunity for the establishment in lower Egypt of other settlers, kindred in race and language, but different in their habits and mode of life. There is reason to believe that during the five centuries of the Hyksos dominion the Phœnicians on the one side, and

the Hebrews on the other, established themselves on the soil of Egypt, and remained there after the Hyksos conquerors had been expelled. Brugsch has shown[1] that among the foreign population of the Delta were a numerous people called the Charu or Chalu, a term used to designate the coast tribes of Syria, and more especially the Phœnicians. We learn from the Egyptian monuments that the men of Char carried on a great trade in Egypt and were much esteemed. The land of the Charu is also called on the monuments Kefa or Keft, and part of the Delta of Egypt was hence called Caphtor,[2] a name which according to Ebers meant the 'greater Keft,' or, as we might render it, Great Phœnicia. About the year 1700 B.C. the Charu are described as beginning at Aupa in the north of Palestine and extending as far as the city of Zar (Tanis Rameses) in Egypt, their settlements penetrating into the heart of the Tanitic nome.

The Charu, who clearly spoke a Semitic language, constituted the kernel of the fixed, industrial, seafaring, and commercial population of the north-eastern corner of Egypt. Brugsch maintains that their descendants can still be recognized in the race of sailors and fishermen who inhabit the shores of Lake

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[1] Brugsch, *History of Egypt*, i., pp. 221—225.

[2] It was formerly supposed that Caphtor was Crete, or possibly Cyprus. (See Ewald, *Hist. Israel*, i., p. 246.) This opinion is now generally given up.

Menzaleh, and whose manners, customs, and traditions, as well as their physical type, clearly show that they are not of Egyptian race.

When the Hyksos were driven out of Egypt the Charu remained, and though regarded as a foreign people, were evidently on terms of friendly intercourse with their new rulers. Thus the first monarch of the eighteenth dynasty, Aahmes, the king who expelled the Hyksos, speaks in one of his inscriptions[1] of "stones drawn by oxen which were brought hither, and given over to the foreign people of the Fenékh (Phœnicians.)"

Hence it is plain that in lower Egypt there were, in addition to the Hebrews, two distinct populations of Semitic race—the Charu or Fenekh, and the Hyksos or Shasu, who were as different from one another as were the Sidonians and the Edomites, to whom they were respectively akin.

Both of these races, the Sidonians and the Edomites, are found at an early period in possession of the Alphabet. Did it pass from Sidon to Edom, or from Edom to Sidon, or was it from the first a common possession of both peoples?

Assuming that the alphabet was invented in lower Egypt, it is almost equally easy to suppose that the Hyksos took it with them on their expulsion, or that it was conveyed to Sidon by means of the Phœnician

[1] Brugsch, *History of Egypt*, i., p. 258.

settlement in the Delta. The first of these views finds favour with Ewald and de Rougé, the second is that advocated by Lenormant and Sayce.

In favour of the first view it has been alleged that the earliest alphabetic monument in existence is the Moabite stone. On our first discovery of the alphabet we find it, in a very perfect form and bearing signs of long continued use, in the possession of one of those semi-nomad desert tribes who were so closely allied with the Semitic Shepherd Kings. The Edomites also, a kindred and adjacent people, who were reckoned by the Egyptians among the detested "Shepherds,"[1] were at a still earlier time in possession of the alphabet, as is shown by the long period covered by their pre-Davidic annals.

It is therefore quite allowable to suppose that the channel of transmission of the Alphabet was through the Shepherd tribes of the Syrian desert, who ranged eastward as far as the Euphrates, and on the north beyond Damascus, and that through them it may have been communicated on the one hand to Phœnicia, and to Nineveh on the other.

Plausible as this view may be, there is much to be said in favour of the opinion advocated by Lenormant

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[1] In a report made to Menephtah, the Pharaoh of the Exodus, son of Rameses II., on the foreign immigrants into Egypt, mention is made of the "Shasu belonging to the land of Aduma (Edom)." —Brugsch, *History of Egypt*, i., p. 216.

and Sayce, that it was by means of the Phœnician colony in the Delta that the alphabet was propagated over Western Asia. From the Phœnicians it might have passed to the Hebrews, and from them to Moab and Edom. On many grounds this seems an easier supposition than that it was imparted by mere desert nomads to the civilized inhabitants of the cities of Phœnicia and Assyria. The great difficulty of Lenormant's theory is, that it does not take into account a fact which it is difficult to controvert,—the possession of the art of writing by the Hebrews at the time of the Exodus.

But, in truth, it is not needful to restrict ourselves to either of these two hypotheses. It is reasonable to suppose that during the Hyksos period the Semitic alphabet was the common possession of all the Semitic populations of Egypt—Hyksos, Hebrews, and Phœnicians. Hence, probably, it was not by one channel alone that the knowledge of the precious inheritance was diffused through Western Asia.

Indeed the early and great divergence of the northern and southern types of the Semitic alphabet, taken in connection with the unexplained problems exhibited by the Libyan alphabet,[1] suggests the conjecture that

[1] The Libyan inscriptions, from Thugga and elsewhere, if correctly deciphered by Halévy, may possibly be found to have sprung from a Hieratic type of somewhat later date than that which gave rise to the Semitic alphabet. In many respects the Libyan agrees curiously with the south Semitic alphabets. See, however, p. 228, note 2.

the bifurcation of the two types may have begun in Egypt itself; the Syrian or northern type having been transmitted through the Phœnician colony of Caphtor, and the Arabian or southern type through the Hyksos of Tanis and Avaris.

However this may be, there can be no doubt that the commercial position of the Phœnicians, as the merchants and carriers of the ancient world, gave them special facilities for aiding in the subsequent diffusion of the alphabet. Through them alone could it have passed to the Carian coasts, and to the Isles of Greece.

M. Lenormant states with considerable force the qualifications which would have enabled the Phœnicians to become, as he claims, the inventors and transmitters of the Alphabet.

They were in geographical contact with the Egyptians, and their trading settlements in Egypt would enable them to acquire a knowledge of the Hieratic writing as used by the Egyptians for secular purposes; while the dissimilarity of customs, language, and religion, would emancipate them from the bondage of Egyptian traditions. The Phœnicians, a practical, commercial people, employing the art of writing for business purposes, in which speed, certainty, and simplicity are so important, would feel the inconveniences and ambiguity of the Egyptian homophones and ideograms. Free from the influence of the conservative traditions which trammelled the scribes and priests of

Egypt, the difference of language would greatly facilitate and stimulate the change, as is evident from the parallel cases of the Japanese and Cuneiform writing. An almost identical argument has been urged by Ewald[1] in favour of the rival claims of the Hyksos to the invention of the alphabet, and it must be admitted that the requirements of commerce do not demand the art of writing more imperatively than the official needs of government.

But to whatever nation the glory of the invention of the alphabet may be due, this at least is clear —it must be to some Semitic people that the world owes this priceless possession. As the greatest of contemporary Semites has remarked, "The Semites are unquestionably a great race, for among the few things in this world which appear to be certain,

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[1] "The idea of moulding the Egyptian hieroglyphic writing to a simple fixed phonetic system would most naturally arise when a nation of non-Egyptian language wished to adapt it to its own wants. Whereas a most imperfect mode of writing may go on essentially unchanged and unimproved among one people and for one language for thousands of years by mere force of custom, it may yet receive great simplification and improvement so soon as it is transferred to a perfectly foreign language, for which it was not calculated, to which it is nevertheless to be applied, because then reflection becomes necessary as to what is really essential, and a new spirit is breathed into the old materials. Just as the Chinese writing has led among the Japanese to syllabaries . . . . so the Egyptian must have received from the Hyksos that momentous simplification and new adaptation which passed over to the other so styled Semitic nations."—Ewald, *Hist. Israel*, ii., p. 7.

nothing is more sure than that they invented our Alphabet."[1]

The importance of the revolution effected by the inventors of the alphabet lay not in the mere choice and simplification of the phonetic symbols, but rather in the courage which enabled them absolutely to discard all the non-alphabetic elements of the Egyptian writing. The cursive Hieratic, or even the still more cursive Demotic, is as far from being an alphabetic system as the monumental Hieroglyphic. As early as the second dynasty the Egyptians had solved the hardest problem of all, the conception of a pure consonant, which involves the essential principles of alphabetic writing, but down to the very last—down to the time of the Ptolemies and even of the Cæsars—they were unable to get free from the enslaving trammels of their traditions—they did not dare to take down the scaffolding which had enabled them to erect the edifice.

It was reserved for the genius of an alien race finally to reject every vestige of homophones and polyphones, of ideograms and syllabics, and boldly to rely on one single sign for the notation of each consonantal sound.

This the Semites did, and hence the Semitic Alphabet was the first true alphabet. It was a true alphabet, but it was far from being a perfect alphabet.

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[1] Lord Beaconsfield, *Endymion*, vol. ii., chap. iv.

Only after the lapse of many centuries, and by means of clumsy and troublesome expedients, did the Semitic peoples succeed in devising a notation to express the vowels. This, the final stage in the development of the alphabet, had been effected already, and after a better method, by various Indo-European races into whose possession the Semitic alphabet had passed. The ancient Aryan alphabets, whether Greek, Sanskrit, or Persian, are distinguished by the possession of distinct letters to denote the vowels; and hence, though the Semites may claim the glory of the invention of the Alphabet, to the Aryans belongs the distinction of having brought it to perfection.

CHAPTER III.

THE PRIMITIVE LETTERS.

§ 1. *Characteristics of the Semitic Alphabets.* § 2. *The names of the Letters.* § 3. *Their Phonetic powers.* § 4. *The Alphabetic Order.*

§ 1. THE CHARACTERISTICS OF THE SEMITIC ALPHABETS.

The twenty-two phonetic symbols whose origin has now been investigated are the fruitful germs from which all existing alphabetic forms have sprung. It remains to describe the characteristics of this archetypal alphabet, whose features have been transmitted in various degrees to its descendants.

The Semitic and the Aryan Alphabets present fundamental points of contrast. Owing to the peculiarities which distinguish the Semitic idioms from other forms of speech, there exists a family resemblance, singularly close, between the Semitic alphabets of the northern stock, whether Phœnician, Moabite, Israelite, Punic, Aramean, Hebrew, Syriac, or Arabic. All these alphabets, dissimilar as are the forms assumed by the individual letters, must be regarded from the scientific point of view merely as successive developments of

the same primitive alphabet. This persistency of type is very remarkable. The most essential features of Semitic writing are exhibited in the monumental forms of the Moabite inscription, and are retained in the cursive Arabic, which at the present day forms the ordinary medium of written intercourse throughout Western Asia. These common characteristics of the Semitic alphabets consist in the direction of the writing, the absence of true vowels, the unique phonology, the number, the names, and the order of the letters.[1]

The Semitic writing, following the example of its prototype, the Hieratic of the Papyrus Prisse, has persistently retained the ancient direction from right to left, whereas in every non-Semitic script, without exception, the direction of the writing has been changed.

The second peculiarity of the Semitic alphabets is still more important. It consists in the absence of true vowels. The non-Semitic scripts, Greek, Zend, Armenian, Georgian, Indian, and Mongolian, have evolved, out of the breaths and semi-consonants of the Semitic alphabet, a set of characters to express the

[1] It should be noted, however, that the Ethiopic or South Semitic sub-family of alphabets has a distinct character and history of its own. It differs more or less from the North Semitic alphabets as to the names, the order, the number, and the value of the letters, as well as in the direction of the writing, the denotation of the vowels, and the mode of alphabetic evolution.

vowels. In none of the north Semitic alphabets has this been done. The notation by which in Hebrew, Syriac, and Arabic, the vowels are now indicated by means of diacritical points, is essentially non-alphabetic in its nature, and is only of recent introduction, in no case making its appearance before the 4th century of our era. The absence of vowels would by itself suffice to place the Semitic alphabets in a class by themselves.

The phonology of the Semitic alphabets is also persistent and unique. They have no symbols for certain classes of sounds, such as the velar gutturals, which are found in other languages, while they possess a notation for the faucal breaths, and the linguals or gutturo-dentals, which are characteristic of Semitic speech.

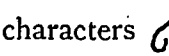
The Semitic alphabets have also practically adhered to the twenty-two primitive characters, no letters have fallen into disuse, nor has the original number been increased. The Phœnician, the Punic, the Israelite, the Samaritan, and the Syriac alphabets have twenty-two letters, neither more nor less. The Hebrew and Arabic alphabets are now able, it is true, to distinguish twenty-nine consonantal sounds, but the number of characters really remains unaltered, the distinctions being effected by means of diacritical points. We find no single instance of that process of differentiation of which the Greek, Slavonic, Indian, Zend and Georgian alphabets offer numerous examples, and by means of which the number of true letters has been largely augmented.

In all these particulars the Semitic alphabets agree with one another, and differ from all other alphabets. The original twenty-two letters have been handed down for eight and twenty centuries, not merely as individual phonetic signs, but as an alphabet, preserving the primitive number, values, names and order.

The forms of the characters, however, have undergone extensive modifications, so much so that in the more modern Semitic scripts it is very difficult to recognize the ancient outlines. From a scientific point of view these changes of external form are of small importance; they are merely the results of the persistent tendency to reduce the characters to forms continually more and more cursive.

When we first make acquaintance with the Phœnician letters they are admirably clear and distinct, though even on the Moabite stone it is possible to detect the tendency towards cursive forms. From this time onward the ancient letters become continually more and more degraded and abraded, they constantly tend towards universal assimilation, till at last, in modern Arabic, the extreme limits of this process of deformation is reached; the primitive monumental forms pass into almost identical curvatures, so that the atrophied fragments of letters can only be identified with their ancient prototypes by means of minute historical investigations.

For example, the twelve well marked Moabite

characters  have been gradually degraded into the twelve Arabic letters ا ب د د د د و و و ر ر ز. These forms are so undistinguishable that it has been found necessary to invent a whole apparatus of diacritical points to enable the reader to recognize and identify them, and they are now written in the following troublesome fashion:— ا ب ت ث ج ح خ د ذ ر ز. Thus the action of the "law of least effort" has had the curious result of increasing instead of diminishing the labour of the scribe.

It is hardly a paradox to affirm that the Arabic alphabet has lost its letters. The individual characters have so nearly disappeared as distinguishable entities, that many of them can only be recognized by artificial methods of denotation. In fact, it is the word rather than the letter which forms the graphic unit. The letter can scarcely be said to have retained any separate existence; it is lost in the word, changing its Protean forms according to its position. The variant symbols for the same letter are sometimes actually more diverse in their forms than are the symbols for wholly different sounds. For instance, ـبـ ـنـ ـيـ ـتـ, which are the medial forms of the four letters *b*, *n*, *y*, *t*, have become absolutely identical in form, and can only be distinguished from each other by the artificial modern addition of the points, whereas the four very distinct characters ء ا ع ه are merely four ways in which the weak aspirate must be written according to its position,

while ـچـ ـڪـ ـکـ ـک are the four forms of the stronger aspiration.

Hence it is necessary to know Arabic as a language before it can be read as a script. The Arabic scholar comes to recognize the words rather than the letters of the writing which lies before him.[1] Thus in this last degradation of alphabetic writing a practical result has been attained which does not differ very materially from the pre-alphabetic writing of the Chinese. Nor is it only in Arabic that this assimilation in the forms of the letters has taken place. We note the same tendency in Syriac and Hebrew. Thus in Syriac the forms ـڠـ ـڤـ ـڤ represent letters so different in their powers as *g*, *l*, and *'a*; while ـڕـ ـڔـ ـڒ ـڕ are all variant forms of the letter *n*. In Hebrew again the similar characters ז ו ן ך ר ד represent *d*, *r*, *k*, *n*, *v*, *z*; ת ה ח stand for *ch*, *h* and *t*; ם מ for *m* and *s*; נ נ כ ב for *b*, *k*, *n*, *g*; while מ ם are both symbols for *m*, and כ and ך for *k*. Thus in all these scripts there may actually be less external distinction between wholly different letters than between variant forms of the same character.

Altogether different in principle is what has occurred in transmissions of the same ancient graphic forms among Aryan nations. The importance of the letter,

[1] See the admirable essays of M. Ph. Berger, *L'Écriture et les Inscriptions Sémitiques*, pp. 17, 23, Paris, 1880. (Two articles reprinted from *L'Encyclopédie des Sciences Religieuses.*)

as the graphic unit, has not diminished, but increased. Instead of becoming assimilated into undistinguishable curves, the individual characters remain as distinct as ever, and retain in many instances all the characteristic features of the primitive outline. Thus in our own letters O Y H Q D A it is easy to recognize all the important features of their Moabite prototypes It is much the same with other letters: the amount of variation which the forms have undergone during so many centuries of transmission is wonderfully small.

So far as alteration has been effected in the forms of the letters of Aryan alphabets it has mainly been with the object of making similar forms more distinct. Thus the primitive letters all of which tend naturally towards the graphic type represented by P, instead of helplessly lapsing into the type, so as to require to be distinguished, as in Arabic, by diacritical points, have been admirably differentiated by changes thoroughly effective though minute, so that they appear in our own alphabet in the readily distinguishable forms B D R P. To prevent confusion with the last of these letters, which has usurped the common type P, one of them, B, has acquired an additional loop; another, D, has lost the prolongation of the vertical stroke; and the third, R, has developed a tail. The four letters are now perfectly distinct, readily recognized, and easily written. We have the minimum of change with the maximum of convenience.

The process is exactly the opposite of that which is exhibited in Hebrew, Syriac, Arabic, and other Semitic scripts.

The difference of principle is equally striking when we consider the methods by which additional phonetic signs have been obtained. In Semitic alphabets this is effected by the troublesome machinery of diacritical points. There is no instance of the process of differentiation by which in the Greek alphabet θ and ϕ were both evolved from ⊗, η and ' from H, or by which our own characters *c* and *g*, *u* and *v*, *i* and *j*, have been created. Thus we see that the history of the Semitic and Aryan alphabets has been influenced by tendencies diametrically opposite. In the one case speed has been obtained at the cost of great cursive deformation, while in the other extreme legibility has been obtained by means of continual differentiation. In the one the convenience of the writer has mainly been consulted, in the other the convenience of the reader.

But in any alphabet the mere forms of the letters are only superficial features. In all essential points, our own alphabet, which has so tenaciously retained the outlines of the ancient letters, has in reality undergone a far greater transformation than the Arabic alphabet, in which scarcely a single letter retains any notable resemblance to the primitive shape. In spite of the almost incredible deformation of the individual characters, the Arabic script has remained

true to all the really essential characteristics of the primitive Semitic writing. The atrophied fragments of the ancient letters still preserve their ancient names, their peculiar powers, their primitive number, and the numerical values which still testify to the ancient order. The whole spirit of the Arabic script is still in accordance with the essential principle of Semitic writing, which is verbal rather than literal, giving the words only in skeleton or outline. For this, of course, there is a cause. It is due to the fundamental structure of Semitic speech.

From the very first the Semitic writing has consisted of a mere external framework of consonantal sounds; our own, on the other hand, has become an instrument for the expression of the host of delicately graduated vowel sounds which play so important a part in Aryan languages. If a simile may be allowed, the difference between Semitic and Aryan writing is very much that between the mere bony framework of the skull, and the living human face, with its infinite power of expressing the most varied emotions, stern frowns or dimpling smiles.

§ 2. THE NAMES OF THE LETTERS.

The significations usually attributed to the names of the Semitic letters[1] have already been given (p. 75).

[1] The names are given according to the usual conventional spelling, which, though not free from objections, may be regarded as

In the present section the various opinions held by Semitic scholars[1] on the subject will be briefly stated, with special reference to their bearing on de Rougé's theory of the origin of the alphabet. Certain preliminary considerations, however, have to be taken into account.

We observe, in the first place, that all the twenty-two names are acrologic; that is, the name of each letter begins with that letter. Most of the names are Semitic nouns, as to the import of which there is no question. In a few cases the meaning is obscure or

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a convenient compromise between the probable primitive sounds and the scientific transliteration of the modern Hebrew names. Thus we may conveniently, if incorrectly, write *vau* instead of either *vav* or *waw*, *tsade* rather than *ṣaḍi* or *ṣadhy*, and may prefer the familiar name *cheth* to either *χet*, *χēθ*, or *ḥet*. It may here be noted that in some instances the Greek forms of the names may probably give a closer approximation to the primitive pronunciation than the modern Hebrew. Thus the names *beta*, *delta* and *pi* may teach us that *beth*, *daleth* and *phe* are comparatively recent forms of the unaspirated ancient names.

[1] A very complete discussion of the meaning of the alphabetic names will be found in an original and suggestive tract entitled *Unseres Alphabets Ursprung*, by F. Böttcher (Dresden, 1860.) See also Gesenius, *Scripturæ Linguæque Phœniciæ Monumenta*; Hitzig, *Erfindung des Alphabets*; Lagarde, *Symmicta*, i., pp. 114, 115; Halévy, *Mélanges d'Épigraphie et d'Archéologie Sémitiques*; and the observations of Lenormant in his article on the alphabet in Daremberg and Saglio's *Dictionnaire*, and in the first volume of his great work on the alphabet. Some curious early speculations on the alphabetic names will be found in Sharpe, *Origin of Language*, pp. 60–66.

dubious, but there can be little doubt that all the names were originally significant Semitic words. It may be assumed that among the possible acrologic designations for each letter the selection would be made[1] on account of some real or fancied resemblance between the primitive form of the letter and the object whose name it bears, as in the case of the nursery picture-alphabets which are found to aid children in remembering the forms of the letters.[2] It would be reasonable to expect as much, or as little, real resemblance in the one case as in the other.

With regard to the Semitic letters, any want of pictorial appropriateness can be readily explained. It is probable (see p. 149) that the names of the letters are coeval with the alphabet itself, and therefore older by some ten centuries than the oldest forms of the letters which we possess. During these ten centuries considerable changes would almost certainly have been effected. A much shorter period has repeatedly sufficed to bring about extensive alphabetic deformation. That such changes affected the characters of the primitive alphabet is plainly indicated by the considerable divergence of the Moabite letters from their

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[1] M. Joseph Halévy is alone in maintaining that there is no such relation between the alphabetic forms and the names, which he thinks were simply mnemonic terms.—Halévy, *Mélanges Sémitiques*, p. 169.

[2] As in the familiar instances:—O was an Orange, S was a Swan, B was a Butterfly, etc.

Hieratic prototypes. The primitive Semitic letters were doubtless intermediate in form between these two types. The alphabetic names, considered as pictorial acrologues, may therefore in some cases receive an easier explanation from the Hieratic characters than from the Semitic letters as we have them.

Bearing in mind these preliminary considerations, the names of the letters may now be discussed seriatim.

Aleph is a name which offers no difficulty. It is the ordinary Semitic term for an 'ox.' We have naturalized it in the word *alpha-bet*, and it is also familiar to us in the name of the *eleph-ant*, a word which proves, by the way, that the knowledge of the great "ox-like" beast of Africa must have come to Europe through a Semitic channel. The Moabite letter bears no inapt resemblance to the front view of the head of the ox, while the Hieratic prototype suggests the characteristic curvature of the horns, which has disappeared in the Semitic character.

Beth, which means 'house,' is a common component of Syrian local names, such as Bethlehem, Bethel, and Bethesda. It used to be thought that the Phœnician letter represented a tent supported by its pole. A comparison of the Hieratic and Corinthian forms (see p. 103) suggests the supposition that the character represented the plan of a two-chambered Eastern house , the men's apartment on the one side, and the women's on the other.

Gimel is a word of which the English 'camel' is both the translation and the transliteration. The objection has been urged that the form of the Semitic letter presents no appreciable resemblance to the animal. Gesenius was driven to suggest that the character ↖ was intended to represent the hump of the camel. Böttcher, believing that the camel etymology must be altogether abandoned, resorts to the Talmudic word *gimla*, which he argues might mean a 'yoke.' This suggestion has been adopted by Lenormant, but has been shown by Halévy to be untenable on philological grounds. The whole difficulty however disappears if we go to the Hieratic prototype, in which it is easy to detect a representation of the head, neck, body, tail, and saddle of a camel, in the characteristic recumbent posture. Placing side by side the prototype from the Papyrus Prisse and a sketch of a recumbent camel, the difficulty which has perplexed so many eminent scholars vanishes at once, while a curious incidental confirmation of de Rougé's theory is supplied.

Daleth means 'a door,' not the aperture itself, which is *pethach*, but the 'leaf of a door,' or the moveable covering of the aperture. The triangular form of the character suggests the curtain hung before the opening of a tent rather than the wooden quadrangular door of a house.

He is a word of less certain meaning. It is usually referred to a Semitic root meaning 'behold,' 'look,'

and is supposed to have denoted a 'window.' The Moabite letter 𐤄, however, does not lend much support to this explanation. The normal closed form of the Hieratic prototype, which is retained in the Carian letter 𐊴, and in the ancient Corinthian *epsilon* 𐌄, may suggest that the primitive form of the Semitic letter was 𓉔, which would sufficiently explain the usual translation of the name.

Vau denotes a 'nail' or 'peg'; rather a hook driven into a wall for hanging things, than a tent-peg. The word is used in the Bible to designate the 'hooks' for the curtains of the tabernacle (Exodus xxvi. 32). The form of the primitive letter 𓌼 supports this explanation.

Zayin has been supposed to mean a 'sickle,' but is more probably to be connected with the Syriac *zaino*, a word which corresponds to the Greek *panoplia*, and denotes 'weapons,' offensive and defensive, or 'arms and armour.' The picture of a sword and shield is perhaps easier to recognize in the Hieratic letter 𓌹 than in the Semitic derivative 𐤆.

Cheth means a 'fence' or 'palisade,' an explanation which accords with the form of the Moabite letter 𐤇. Ewald, however, takes it to mean a 'knapsack.'

Teth has been referred to a Semitic root meaning 'curvature,' and the character is supposed to represent a 'coiled snake,' an explanation which would correspond better with the Hieratic prototype 𓆙 than with the Semitic letter, of which the oldest form

supports the rival meaning 'basket.' Halévy considers that the name denotes 'mud' or 'clay,' while Böttcher explains the letter as a picture of the 'fist,' arguing that the Egyptian word *tot* means 'hand,' and that *teth* is placed in juxtaposition with the two hand names *yod* and *kaph*.

Yod plainly means the 'hand.' The shape of the Semitic letter does not lend much support to this explanation, but the Hieratic character bears a sufficient resemblance to the uplifted hand with the thumb held apart.

Kaph is usually held to mean the 'palm' of the hand, or more probably, as Böttcher suggests, the 'bent hand.' The form of the Hieratic character in the Papyrus Prisse seems to be decidedly in favour of this explanation, as will be seen by placing the two figures side by side.

Lamed means an 'ox-goad,' or possibly a 'spit.' Lagarde makes it a 'cudgel.'

Mem means the 'waters.' From the Greek alphabet of Melos we obtain an ancient form of the character ᵐ], which closely resembles the conventional representation of 'water' 𓈖, which is found in the Egyptian hieroglyphics.

Nun is a word which only occurs in Hebrew in the composition of proper names, but there is no doubt that it meant a 'fish.' In this case again the Hieratic form affords a better explanation of the name than the Semitic letter ן (see p. 107).

Samekh is a name of which the explanation is less obvious. The Syriac stem *s'mach* means 'to support,' and the Phœnician letter is usually supposed to be a picture of a 'prop' or 'support' of some kind, an explanation which seems more probable than any of the other meanings, such as 'roof,' 'rail,' or 'baluster,' which have also been suggested. It has not been noticed, however, that the Hieratic figure suggests the picture of a post driven into the ground more readily than the Moabite letter .

'Ayin offers no difficulty. As Lenormant has suggested, we may take this character as an ideographic picture of the 'eye' (see p. 116). On the bronze vessels from Cyprus as well as in the Siloam inscription we have an elongated form which is probably more archaic than the Moabite letter .

Pe means the 'mouth.' As has been already observed (p. 102), the Hieratic prototype supplies an explanation of this name which the Semitic form fails to give.

Tsade is a name of which more than one explanation has been given. It is usually taken to mean a huntsman's dart, the Semitic form being supposed to represent the 'javelin' with its cord attached (*amentum*). The word might mean a 'hook,' either a reaping hook or a fishing hook. 'Beard' and 'nose' have also been suggested, but on grounds which seem philologically inadequate.

Qoph is another name respecting which there are

wide differences of opinion. The old explanation, which has again been revived by Halévy, is that it denotes an 'ape,' the character ϕ being taken to represent an ape with its tail hanging down. It may also be referred to a Talmudic root which would signify an 'aperture' of some kind, as the 'eye of a needle,' or as Lagarde and Ewald suppose, it may be the picture of an 'ear.' Lenormant adopts the more usual explanation that the word means a 'knot.' The great diversity of these explanations may perhaps lend support to the supposition that *kaph* and *qoph* were originally identical, both the names and forms having been obtained by differentiation from a single primitive source.

Resh clearly means the 'head,' and the Hieratic form sufficiently suggests the oval of the head, supported by the neck.

Shin is sufficiently explained from the resemblance of the Semitic letter to the 'teeth.' In the Hieratic character we may possibly recognize an outline of the lower teeth, chin, and beard.

Tau, the last of the letters, is the 'sign' or 'cross' used for marking the ownership of beasts (see Ezekiel ix. 4). The early form of the letter is + or X, which would be the easiest and most natural mark to use for such a purpose.

It will be observed that out of the twenty-two letters the names of seventeen are Semitic words, as to the meaning of which there is practically no doubt.

Of five names only is the explanation obscure or doubtful. The rest are plainly pictorial acrologues. In several cases the names offer curious confirmations of de Rougé's hypothesis. There are no less than six names, *gimel*, *he*, *yod*, *nun*, *pe*, and *samekh*, of which no adequate explanation is afforded by the Semitic forms, while they are readily interpreted by the aid of the Hieratic prototypes.

§ 3. THE PHONETIC POWERS OF THE LETTERS.

The vast and thorny field of Semitic phonology has, as yet, been little cultivated; while much of the work that has been done is of only doubtful value. Without professing to deal with a subject of such difficulty, it may be possible to state the opinions which are commonly held as to the general nature of the sounds represented by the letters of the Semitic alphabet.[1]

[1] The best account of the modern Arabic consonants will be found in Spitta's Grammar of Egyptian Vulgar Arabic. See also the treatise of Lepsius, *Ueber aie Aussprache und die Umschrift der arabischen Laute*, in the Berlin Transactions for 1861. For Phœnician see Schröder, *Die Phönizische Sprache*. On the relation of the modern to the ancient sounds of the Semitic letters consult Lagarde, *Semitica*, part 2; also Philippi and Stade in the *Morgenländische Forschungen*, and some remarks by Sayce, *Science of Language*, ii., p. 324. For Aramaic we have Nöldeke's *Syrische Grammatik*, and for Hebrew Olshausen's Grammar. The *Standard Alphabet* of Lepsius must be used with caution. For much of the information in this note I am indebted to Professor Robertson Smith. To the kindness of Mr. Ellis, the first of English phonologists, the next few pages owe nearly all the value they may possess.

TRANSLITERATIONS OF THE SEMITIC LETTERS.

		Usual Notations.	Standard Alphabet.	Missionary Alphabet.	Glossic.	Palæotype.	Gesenius.	Ewald.	A. V.	Vulgate.	LXX	Arabic.
Aleph	א	a, e, 'a	ʾ	ʾ	ʔ	I	ʾ	ʾ	e, a	a, e, (o)	α, ε (η, ο)	ا
Beth	ב	b	...	...	...	...	...	...	...	...	β	ب
Gimel	ג	g	...	...	...	...	...	...	...	...	γ	ج
Daleth	ד	d	...	...	...	...	...	...	...	...	δ	د
He	ה	h	h	ʿ(h)	h	H	h	h	h, a	a, (o,)	α, (ο,)	ه
Vau	ו	v, w, u	u	w	v	v	v	v	o, u, v	o, u	ου, ω, ο, υ	و
Zayin	ז	z	...	...	...	...	s	z	z, (zz)	z, (sd)	ζ (σδ)	ز
Cheth	ח	ch, kh	χ	ʿh	kh	kh	ch	ch	h, (ch)	ch(e,h,a)	χ (ε,α)	خ
Teth	ט	t, ṭ	t̲	t, ʿt	ʿt	t	t'	t'	t, tt	t	τ	ط
Yod	י	y, i, j	i	y	y	J	j	j	j, (e, i)	j, i, e	ι, η, ει	ى
Kaph	כ	k, kh (c, ch)	...	...	...	...	...	...	c,ch,(cc)	ch, c	κ, χ	ك
Lamed	ל	l	...	...	...	...	...	...	...	...	λ	ل
Mem	מ	m	...	...	...	...	...	...	...	...	μ	م
Nun	נ	n	...	...	...	...	...	...	...	...	ν	ن
Samekh	ס	s	s	ſ	s	s	s	s	s	s	σ	س
'Ayin	ע	'a	ʾ	ʾh	ʿ	ɛ	a	gh	a, g, e, ah (i, o, u)	g, h, a e, ee, o	γ, α, ο υ, η, ῆ ἐ, ἑ, ει	ع
Pe	פ	p, ph	...	...	...	...	...	...	...	...	π, φ	ف
Tsade	צ	ts, ṣ, ç	ṣ̲	ṣ̲	ʿs	s	z	ʂ	z, (zz, ss, t)	s, (t, ss)	σ, (τ)	ص
Qoph	ק	q, q'	q	q	ʿk	K	k	q	k (c, kk)	c (ch, k)	κ	ق
Resh	ר	r	...	...	...	...	...	...	...	...	ρ	ر
Shin	ש	sh, š, s	š	s('y)	sh	sh	sch	sch	sh (s,ss)	s (ss, t)	σ (σσ,τ)	ش
Tau	ת	t, th	...	...	...	...	...	...	...	...	τ, θ	ت

The annexed Table exhibits in parallel columns the chief systems by which the Semitic letters are transliterated. The Hebrew letters are given first, with the equivalents in Roman letters which are commonly used in English books. These are followed by the notations which have been proposed by the authors of the principal scientific alphabets, such as the 'Standard Alphabet' of Lepsius, the 'Missionary Alphabet' of Max Müller, the 'Glossic' and 'Palæotype' of Mr. A. J. Ellis and Prince L. L. Bonaparte, together with the transcriptions adopted by Gesenius, Ewald, and other scholars. The transliterations employed in the Authorized Version of the Old Testament, as well as those used in the Vulgate and the Septuagint versions, are also added, as they are valuable from the evidence which they afford as to the ancient pronunciation of the letters. The less usual transcriptions are placed in brackets. The last column contains the modern Arabic letters which are believed to correspond most nearly to the primitive sounds of the ancient characters.

As a matter of typographical convenience it is usual to represent the letters of the ancient Semitic alphabet by means of the modern square Hebrew characters.[1] Such an expedient must be regarded as a mere relic of pre-scientific epigraphy. It is almost as barbarous as would be the transcription of a Greek

[1] The French Academy must be congratulated on having at last, at the instance of M. Renan, broken through this unscholarlike

author in Roman letters. It must not, however, be assumed that the sounds denoted by the square Hebrew letters were in every case the same as the sounds of the ancient letters for which they are made to stand. There is no reason to suppose that Semitic speech has been unaffected by the processes of phonetic decay which have taken place in other languages. The sounds, as well as the forms of the ancient letters, have doubtless undergone considerable variation.

Referring to the Table on page 176, it will be seen that about half of the Semitic letters can be represented with tolerable accuracy by letters of our English alphabet. These are

Semitic	ת ר פ ס נ מ ל כ ז ה ד ג ב
English	*b g d h z k l m n s p r t*

The remaining letters do not correspond so exactly to any letters in our own alphabet, and therefore require

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practice. Two admirable founts of Semitic type, one representing the alphabet of the 9th century B.C., and the other that of the 4th, have been cut with extreme care for the purpose of printing the *Corpus Inscriptionum Semiticarum.* A valuable article by M. Philippe Berger on Semitic typography, with patterns of the various dies which have been engraved, will be found in the *Journal Asiatique* for January, 1880. A Hebrew Bible, printed in the 'Phœnician' characters in which it must have been written, is much to be desired. Not to speak of other advantages, it would be as superior to the square Hebrew in legibility and distinctness as a modern book to a book printed in black letter.

to be represented by a notation more or less artificial.[1]

In the Semitic languages there are two whole classes of guttural sounds which are foreign to European speech. These are, first, the so-called linguals or gutturo-dentals; and secondly, the guttural breaths or faucal sounds.

Modern Arabic possesses four linguals ض ص ظ ط, which have been developed out of the two linguals of the primitive Semitic alphabet, ט *teth* and צ *tsade*. These two letters, for which almost every writer has proposed a transcription of his own, are, the one a gutturalized *t*, and the other a gutturalized *s*.[2]

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[1] In Hebrew, six of the letters, in addition to their ancient values, acquired at an early period an alternative softer aspirated sound. These differentiated values are distinguished by diacritical marks, the harder primitive sound being indicated by an internal point (*Dagesh lene*), and the aspirated later sound being denoted exceptionally by a line (*Raphe*), or more usually by the absence of the *Dagesh*. We have thus in modern Hebrew the following notation:— ת פ כ ד ג ב, represented by *b g d k p t*; and ת̲ פ̲ כ̲ ד̲ ג̲ ב̲ or ת פ כ ד ג ב by *bh gh dh kh ph th*. The letter *shin* ש was also split up into two sounds, which were distinguished by diacritical marks. The first sound, which approached our *s*, is written שׂ, while the second, which agreed with the German *sch*, was expressed by שׁ. There is reason to believe that the primitive value fluctuated, in different dialects, between these two sounds.

[2] They are pronounced with the forepart of the tongue, the breadth of which approaches the whole anterior space of the hard palate as far as the teeth, the tip of the tongue being slightly turned downwards, and the throat being at the same time narrowed at the guttural point as if a guttural was about to be pronounced. Hence the 'linguals' acquire a thick guttural sound technically called

The 'faucal breaths' as well as the linguals, are characteristic of the Semitic languages. They are *'aleph, he, cheth, 'ayin.* Of these faucal sounds *aleph,* which corresponds to the *spiritus lenis* of the Greeks, was the lightest. It was pronounced below the guttural point, at the very top of the larynx, and is barely audible even before a vowel. It is not a semi-vowel, nor even an aspiration, but a slightly explosive consonant, approaching the sound which may be heard in English after the words *no!* or *bah!* uttered abruptly, or between two vowels which are pronounced separately, as in *a'orta* or *go 'over.*

'Ayin is the most difficult of the faucals. It had two sounds, a harder and a smoother sound, varying between a *g* rolled in the throat and an almost evanescent breathing, a little harder than *aleph,* and pronounced by means of a slightly stronger explosion at the same point of the throat. Mr. Ellis considers that this is nearly the initial sound heard in the English words *hume* and *huge.* As it is not a vowel, but a consonant preceding the vowel, it is represented in the Standard Alphabet by doubling the *spiritus lenis* ʻʻ, in Glossic by ʕ (a turned semicolon), and in Palæotype by ʕ (a turned 3), from the similarity to the Arabic letter ع, which represents the sound in living lan-

'emphatic.' The 'emphatic' sibilant *tsade* is usually defined as a fricative lingual, and the 'emphatic' dental *teth* as an explosive lingual. Mr. Ellis defines *tsade* as a "hard continuous alveolar," and *teth* as a "hard explosive gutturo-palatal."

guages. Bickell uses *'a*, a notation scientifically incorrect, but perhaps more convenient than any other that has been suggested.

Cheth, defined as a 'fricative faucal,' was a strongly marked continuous guttural sound produced at the back of the palate. The sound does not exist in English, French, or Italian, but comes near to the *ch* in the German la*ch*en, or the Scotch lo*ch* (Spanish *x* and *j*.)

He was originally a fainter sound of the same class, a continuous guttural. It nearly approached our *h* in co*h*ort, and even came to be used to denote a final vowel. It was probably the surd sound corresponding to *aleph* as a sonant.

The letter *q'oph*, which is transliterated by *q'* or *q*, must not be confounded with the velar guttural *qu* (in quick), which is a sound foreign to Semitic languages. It is defined by Mr. Ellis as a 'hard explosive ultra guttural,' and may be described as a guttural having an affinity with *k*, but formed further back, between the posterior soft portion of the palate and the back of the tongue. The difference between *kaph* and *q'oph* is of the same nature as that between the gutturals in the words *calf* and *cow*.

The Semitic alphabet is characterised not only by symbols for these peculiar sounds, unknown in Aryan languages, but by the still more important fact of the absence of any true signs for vowels.

It seems probable that in the old Semitic there were

only three distinct vowel sounds, *a* (in *f*ather) the Italian *i* (English *e*) and *u*. The way in which these vowel sounds could be expressed demands a few words of explanation.

The letters *yod* and *vau* are semi-consonants, or rather consonantal vowels, and may usually be transliterated by *y* and *v*. But *y* passes readily into *i* and *v* into *u*. Hence, in the later stages of the Semitic alphabet, *yod* and *vau* come to be used with increasing frequency to denote the cognate vowel sounds *i* and *u*. The vowel *a* was regularly omitted, except at the end of a word, when it was denoted either by *he* or *aleph*.

Looking at these facts, it is perhaps not too much to assert that we may trace in the Semitic alphabet a faint survival of the Egyptian syllabism out of which it grew. Lepsius considers that each of the primitive Semitic consonants really contained *a* as an inherent vowel, which could, however, be replaced or eclipsed by the sounds of *i* or *u*, expressed by *yod* or *vau*. This view is supported by the fact that at the beginning of a syllable these letters have the semi-consonantal sounds of *y* and *v*, acquiring a vocalic power only when preceded by a consonant.

Hence the Semitic alphabet seems to occupy a position intermediate between the purely syllabic and the purely alphabetic stage. It is something more than a syllabary, but something less than a perfect alphabet. That this should have been originally the case can be readily explained by its Egyptian

derivation, but that it should never have advanced beyond this stage is doubtless due to the nature of the Semitic languages, which differ in their structure from all other known idioms. The ultimate roots of Semitic words are tri-consonantal, and must originally have been tri-syllabic in pronunciation. From these tri-literal roots words were formed by means of pronominal roots either prefixed or suffixed. Hence arises the characteristic feature of the Semitic languages, the interior vowel changes within the stem. For instance, we have the root *k-t-b* with the meaning "write." As a tri-syllable, with the vowel *a*, we get *kataba*, "he has written," and with a change of vowel we have *kutaba*, "it has been written," *kātabu*, "writing," and *katūbu*, "written."

It is obvious that a language whose osseous skeleton, so to speak, is built up solely out of consonants, is suited to a form of writing which fixes only the consonants. Thus the Semites, owing to the nature of their language, were able, in their writing, to depict the words by an outline sketch which the intelligence of the reader could sufficiently fill in. It is equally plain that in an Aryan language, in which the vowels do not play that subsidiary part which they do in Semitic speech, such a mere framework of consonantal sounds would not suffice to make the writing fairly intelligible without a full representation of vowel sounds. In English, for example, the three consonants *g-r-n*, instead of being constant to one

radical meaning, as in a Semitic language, belong to words so wholly unconnected as green, grin, grown, groin, grain, and groan. It is manifest that in such a language as our own it would be impossible, without a full representation of the vowel sounds, to make written words fairly intelligible to the reader; and hence, in those Aryan or Turanian graphic systems which have arisen out of the Semitic alphabet, an appropriate vowel notation has necessarily been evolved.[1]

The vowel sounds being thus indefinite and variable in Semitic languages, instead of being fixed and radical as in our own, the result has been, that even in the latest Semitic alphabets the breaths and semi-consonants of the primitive Semitic alphabet have retained their original character, instead of having become transformed into true vowels or true consonants, as in the alphabets of non-Semitic languages.

The inconveniences of not possessing a notation for the vowels must however have been strongly felt, and hence we find, that as the Semitic writing became more developed, a system of vowel notation was gradually introduced. An early step was, as we have seen, the introduction of signs to denote the long vowels, which were of chief importance for the sense, but it was not till after many centuries that any com-

[1] See chap. v., § 5, *infra;* also Friedrich Müller's admirable tract *Ueber die Schrift der malayischen Völker*, pp. 5, 6; and Sayce, *Science of Language*, i., 116; ii., 166.

plete scheme of vowel notation came into existence. An account of the elaborate system of vowel points, as developed in Syriac, Arabic, and mediæval Hebrew, belongs rather to Semitic grammar than to the history of the Alphabet.

§ 4. THE ALPHABETIC ORDER.

The order in which the Hebrew letters are customarily arranged is essentially the same as that which prevails in our own alphabet. This fact establishes the great antiquity of the arrangement, which must date from a period prior to the transmission of the Phœnician alphabet to the Greeks. This conclusion is confirmed by other considerations.

There are four methods by which the arrangement of the letters in ancient alphabets can usually be ascertained.

1. By means of actual alphabets or *abecedaria* which by some fortunate chance have been preserved.

2. From the values attached to the letters when used as numerals.

3. By means of acrostic compositions.

4. From evidence afforded by alphabetic transmissions.

The oldest *abecedarium* in existence is a child's alphabet scratched on a little ink-bottle or lecythus of black ware, which was found on the site of Cære, one of the oldest of the Greek settlements in central Italy.

Though it is a Greek alphabet, yet the forms of the letters differ so little from the ancient Phœnician type, that it may be asserted, on palæographic grounds, that the date can hardly be so recent as the end of the 6th century B.C. This, and some similar *abecedaria*, will be discussed in the chapter on the Greek alphabets. It need only here be said that the Cære alphabet establishes the accepted order of all the Semitic letters except *qoph*, which is omitted.

The Hebrew letters are used as numerals according to the order of their occurrence in the alphabet. In the Samaritan alphabet, and also on the coins of the Asmonean princes, the letters are found to possess the same numerical values as in the Hebrew alphabet. Now the square Hebrew is an alphabet of the Aramean class, while the Asmonean and Samaritan letters belong to the older Israelite or Phœnician type. Since the separate development of the Aramean alphabet dates from about the 7th century B.C., we may conclude that the present arrangement of the square Hebrew letters is not more recent than that date, while the transmission of the same numerical values to the Greeks implies an antiquity very considerably greater.

The arrangement of the verses of certain alphabetic or acrostic compositions, such as Psalms 119, 111, and 145, together with the first four chapters of the Lamentations, and Proverbs xxxi. 10—31, is in accordance with the present arrangement of the Hebrew

alphabet. These compositions, therefore, carry back the existing order of the Semitic alphabet to a date prior to the Captivity.

Of still earlier date are Psalms 37; 9 and 10; 25 and 34; one or more of which may possibly even be Davidic. In these more ancient Psalms the arrangement, though only imperfectly acrostic, suffices to prove that, at the time of their composition, the order of the letters was essentially the same as that with which we are familiar, with possible variations affecting the places of certain letters.[1]

By all these independent modes of proof it is established that the familiar order of the letters of the Semitic alphabet is of great antiquity, as old, we may believe, as the 9th or 10th century B.C., though how much older the evidence does not enable us to determine. On the other hand, the Egyptian alphabetic liturgies discovered by M. Mariette (see p. 86), prove that the Semites did not derive from Egypt the order of the alphabet.

The arrangement must therefore have originated among the Semites themselves. It can hardly have been wholly accidental, but the determining causes are not so easy to detect. The question has been

[1] The anomalies in the earlier acrostic Psalms may possibly indicate that, at the time of their composition, the place of certain letters was not absolutely fixed. Thus Psalms 25 and 34 contain no *vau* verse, while a final labial, *phe*, comes at the end after *tau*. This agrees with the earliest Ionian alphabets, in which *vau* is wanting

a fertile subject of speculation,[1] but it cannot be said that any very positive results have been hitherto attained.

In such matters the most fruitful method of research is to endeavour to explain the unknown by the analogy of the known. It will be well, therefore, to begin by examining the principles which have guided the arrangement of other alphabets.

The usual methods of alphabetic arrangement are not more than four. The classification may either be (1) Phonologic, (2) Morphologic, (3) Ideologic, (4) Chronologic:—that is, the letters may be arranged

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from the 6th place, while its derivative, *upsilon*, comes after *tau*. (Professor Lagarde has, however, suggested that the supernumerary verses may indicate acrostically the name of the Psalmist. Lagarde, *Symmicta*, p. 107; *Academy*, January 1st, 1877; Robertson-Smith, *Old Testament in the Jewish Church*, p. 416.) It is to be noted that the irregularities in the early acrostic Psalms affect those letters (*vau*, *qoph*, *resh*, *'ayin*, and the three liquids,) whose places appear to be dubious on other grounds; namely, the evidence of the Ethiopic and Greek alphabets, and the indications, presently to be discussed, that certain Semitic letters are only of secondary origin (see p. 195).

[1] Lepsius, in his *Sprachvergleichende Abhandlungen*, has an essay on the order of the letters in various alphabets, *Ueber die Anordnung und Verwandtschaft des Semitischen . . . . Alphabets*. He sets forth the speculations of Plutarch (*Sympos.* ix. 2, 3), Eusebius (*Præpar. Ev.* x. 5; xi. 6), and Jerome, as well as the opinions of Ewald, Hoffmann and Seyfarth. Cf. Donaldson, *New Cratylus*, p. 149; Kopp, *Bilder und Schriften*, ii. p. 91; and Professor Key's treatise on the alphabet in the Penny Cyclopædia. I have discussed some of the general principles of alphabetic arrangement in *Greeks and Goths*, pp. 99—107.

either according to their sounds, their forms, their names, or their dates.

The scientific principle of arrangement is the Phonologic, of which the most perfect example is furnished by the Devanagari or Sanskrit alphabet, which exhibits an almost ideal scientific classification. The thirty-three consonants are arranged according to the organs of speech with which they are pronounced, in seven classes, as gutturals, palatals, cerebrals, dentals, labials, semivowels, and sibilants; the letters contained in each of the seven classes being also ordered on scientific principles. This method is adopted in modern scientific alphabets, such as those of Bell, Lepsius, Bonaparte, Max Müller, Ellis, and Sweet.

The Morphologic method of classification is not unusual. It is very convenient for the learner; letters of similar forms being brought into juxtaposition, it becomes easy to compare them, and to remember minute distinctions in their outlines. The Chinese 'keys' are classified on this principle, which has also been extensively employed in the arrangement of the Arabic, Ethiopic, and Runic alphabets.

The Chronologic method, by which the letters fall into place according to the dates of their invention or adoption, has also affected the final arrangement of numerous alphabets, among which the Greek, the Coptic, the Georgian, and the Russian may be enumerated. Thus in the Greek alphabet the new characters υ ϕ χ ψ ω follow at the end, after the

primitive letters, and the same plan has been adopted in the Georgian and Russian alphabets. The positions of the Latin letters *g x y z* are also chronologic. In our own alphabet the new letters are placed next after those from which they have been differentiated; thus *j* comes after *i*, while *v* and *w* follow after *u*.

The Ideological method, by which the characters are classed according to the meaning of their names, has been used by Egyptologists for the arrangement of the hieroglyphic signs.

With regard to the Semitic alphabet opinions are divided. The hypothesis of a primitive Ideologic arrangement has been advocated by Kopp, Böttcher, and Ewald, while a Phonologic scheme has been elaborately expounded by Lepsius, and espoused by Donaldson and Key. The prevalent opinion, however, seems to be that the order in which the letters stand is merely accidental.

The Ideologic hypothesis has no doubt much to commend it. When we find placed side by side such names as *daleth* and *he*, door and window; *kaph* and *yod*, hand and palm; *mem* and *nun*, water and fish; *'ayin* and *pe*, eye and mouth; *resh* and *shin*, head and tooth, it is difficult, as Ewald urges, to believe that such collocations, occurring so repeatedly, can be due wholly to chance.

But this hypothesis, plausible though it seems, is inadequate to explain the whole of the facts. There is however no reason why it should not be admitted

as a partial explanation. Supposing that there were at first one or two such accidental collocations in an alphabet primarily arranged on some other plan, it is easy to understand that subsequent dislocations might have been brought about by analogy, in the attempt further to extend the supposed method of arrangement.

The Phonologic hypothesis equally fails to afford a complete solution of the problem. Like the Ideologic method, it succeeds in some cases but fails in others. Hence it appears that there is no single hypothesis by which the existing order can be explained.

But the analogy of other alphabets shows that this result is just what might have been anticipated. In almost every known alphabet more than one principle of arrangement has been at work. A primitive arrangement, according to some one system, has usually been modified by subsequent partial rearrangements on different principles. This then is to be expected in the case of the Semitic alphabet.

The antecedent probability would be that the phonologic arrangement, of which Lepsius has pointed out such copious surviving traces, was the plan originally adopted. We may also expect to find that the chronologic principle has, as usual, affected the positions of a few letters near the end of the alphabet, while other dislocations may have been brought about by the operation of morphologic or ideologic causes.

It will be needful, therefore, to begin by analyzing

the existing arrangement with the object of detecting traces of such later rearrangements.

Taking the Semitic letters in their final order, we find that they fall into three groups:—

I.							II.									III.											
א	ב	ג	ד	ה	ו	ז	ח	ט	י	כ	ל	מ	נ	ס	ע	פ	צ	ק	ר	ש	ת						
'a	*b*	*g*	*d*	*h*	*v*	*z*	χ	*ṭ*	*y*	*k*	*l*	*m*	*n*	*s*	*'a*	*p*	*ṣ*	*q*	*r*	*š*	*t*						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22						

Here we notice the peculiar positions of the sibilants, *z* being the 7th letter, *š* the 21st, and *s* the 15th. It is only necessary to assume a single transposition; to suppose for instance that *k* belonged originally to the third group, and we should have *z* for the 7th letter, *s* for the 14th, and *š* for the 21st. That is, we should have the three sibilants or sabbatical letters occupying the three sabbatical places as the 7th, 14th, and 21st letters. Remembering the importance attached among all Semitic races to the sacred planetary number seven, it seems probable that it was not by mere accident that the sibilants came to occupy these positions. Therefore by excluding them for the present from consideration, the ground will be cleared for an examination of the principle on which the remaining letters were arranged. Excluding the sibilants, the other letters group themselves in four divisions:—

'a b g d h v χ ṭ y [k] l m n 'a p q [r] t.

Here it is difficult to avoid noticing a definite phonological principle of arrangement, into which all the letters fall except those which are enclosed in brackets.

The first division contains three soft mutes, *b g d*; the second contains three continuants, *v* χ *ṭ*; the third three liquids, *l m n*; and the fourth three hard mutes, *p q t*.

Not less noticeable is the order in which the three soft mutes in the first division are arranged. It is *b g d*, first a labial, next a palatal, then a dental. It is the same with the continuants *v* χ *ṭ* in the second division; we have first the labial, then the palatal, and the dental last. In the fourth division the same principle of arrangement holds; we have *p q t*, a labial, a palatal, and a dental.

We also notice the remarkable arrangement of the four breaths. Each of the four divisions is headed by that breath which agrees most nearly with the characteristics of the division in which it stands; thus the softest breath heads the soft mutes, while the hardest breath heads the hard mutes.

It is most improbable that this arrangement, which in its essential features accords so curiously with a phonologic classification of the letters, can be due to mere accident. The mathematical chances are overwhelmingly in favour of its being a survival from some ancient phonologic arrangement.

We may assume then that the key to the primitive arrangement lies before us.

Exchanging the analytical method of investigation which has hitherto been pursued for the synthetic, we may attempt to group the letters on what appears

to have been the original plan, putting the sibilants into a class by themselves, and bracketing any letters which will not fall into the arrangement. Using the ordinary convenient, though not altogether unobjectionable nomenclature, we should have the twenty-two letters phonologically arranged according to the following scheme :—

	Breaths.	Labials.	Palatals.	Dentals.	Sibilants.
Soft	*'a*	*b*	*g*	*d*	*z*
Continuous	*h*	*v*	χ	*ṯ*	*ṡ*
Liquid	*y*	*m*	*l* (*r*)	*n*	*s*
Hard	*ʿa*	*p*	*q* (*ḳ*)	*t*	*š*

If the sibilants are not taken into account it will be seen that this scheme is almost identical with the actual arrangement. It has only been necessary to suppose that in the primitive Semitic alphabet, as in the Egyptian alphabet from which it was derived, the sounds *l* (*r*) and *ḳ* (*q*) had not been differentiated at the time when the letters were first arranged as an alphabet.[1]

The analogy of many other alphabets makes it pro-

[1] This conjecture, which has already been advanced by Lepsius (*Anordnung*, pp. 9—13) and Donaldson (*New Cratylus*, p. 148), may be supported on independent grounds. The difficulty of deriving *l* from the hieroglyph of the 'lioness,' as proposed by de Rougé, has already suggested the probability that the Semitic letters ꝙ (*r*) and

bable that the primitive order, on whatever principle it might be based, would undergo subsequent modification in accordance with some other method. So soon as the homophones *l* (*r*) and *k* (*q*) were differentiated, the symmetry of the primary phonetic scheme would be obscured, and the theory would be ultimately forgotten. A new arrangement being required, we may suppose that the letters would be rearranged in classes of sevens, the sibilants being made to occupy the sacred or sabbatical places. The lacunæ in the third class would naturally be supplied by the new letters and the superfluous lingual. We should then have the following arrangement:—

	1	2	3	4	5	6	7
Class I.	*'a*	*b*	*g*	*d*	*h*	*v*	*z*
Class II.	*χ*	*ṭ*	*y*	*m*	*l*	*n*	*s*
Class III.	*'a*	*p*	*ṣ*	*q*	*k*	*r*	*š*	*t*

Two final transpositions would be brought about by causes which have largely affected the arrangement of other alphabets. The letters *yod* and *kaph* would be brought into juxtaposition on ideologic or morphologic grounds, either on account of the analogy of the forms , or of the names, 'hand' and 'palm.' In like manner *mem* and *nun*, , 'water' and 'fish,' would be placed side by side by reason of the

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 (*l*) are only differentiated forms of the Hieratic (*r*, *l*). See p. 109 supra. With regard to *kaph* and *qoph*, the similarity of the names, and of de Rougé's suggested prototypes, are reasons for doubting the independence of letters so nearly homophonous.

resemblance of form, sound, or meaning. These two slight transpositions having been effected, we have the alphabet in its familiar final order.

The foregoing explanation is offered only as an hypothesis. The question to be determined is whether some such supposition, supported as it is by analogies supplied by so many other alphabets, is not on the whole more probable than the only alternative conjecture, that all the curious collocations of the letters of the Semitic alphabet are to be regarded not as vestiges of the ancient order, but as due absolutely to mere accident.

CHAPTER IV.

THE PHŒNICIAN ALPHABET.

§ 1. *The two types of the Phœnician Alphabet.* § 2. *The Inscriptions of the First Epoch.* § 3. *The Inscriptions of the Second Epoch.* § 4. *The Punic Alphabet.* § 5. *The Alphabet of Israel.*

§ 1. THE TWO TYPES OF THE PHŒNICIAN ALPHABET.

THE early history of the Semitic alphabet has to be constructed by the aid of inscriptions. The oldest monument to which a positive date can be assigned belongs to the 9th century B.C., but from this time onward we possess a continuous series of records, by means of which the development and degradation of the alphabetic forms can be traced with tolerable certainty.

At a still earlier period the Greek alphabet branched off from the Phœnician stem. Hence, from the forms of the primitive Greek letters, inferences may be drawn as to the older forms of the Semitic characters. To some very ancient, but unknown period, we must also assign the origin of the primitive Arabian or Ishmaelite alphabet, which became the parent of the Ethiopic and Indian alphabets.

Reserving for future consideration the history of the European, the African, and the Indian alphabets, whose development pursued an independent course, we have to trace in the first place the history of the alphabets used by nations belonging to the north Semitic stock.

These alphabets again may be divided into two distinct stems. The literary alphabets, those which, like the Hebrew, the Syriac, and the Arabic, enshrine an extant literature, belong to the Aramean class. They are descended from the local alphabet of the highlands of northern Syria, which began to be developed about the 7th century B.C., and after the downfall of Phœnician power and trade which took place during the three following centuries, rapidly displaced the primitive alphabet of Phœnicia as the general medium of commercial intercourse throughout Western Asia. The Aramean alphabets are so distinct from the rest, that they also may be conveniently considered by themselves.

There remains only the Phœnician alphabet, properly so called—that is the alphabet which was employed in the cities and colonies of Phœnicia, and also by contiguous nations, such as Israel and Moab. Turning to the Genealogical Table on page 81, it will be seen that the Phœnician alphabet has left only one representative in the line of direct descent. This is the Samaritan, the sacred script of the few families who still keep alive the old life of Israel on the site of

Shechem, and still worship, as of old, on Mount Gerizim. With this exception the venerable Phœnician alphabet has become extinct. It is not a literary but a monumental alphabet, known to us almost entirely from lapidary records. It is by means of these inscriptions, of which several hundreds have come down to us, that the history of the Phœnician alphabet must be constructed.[1]

Phœnician inscriptions divide themselves into two classes, which are distinguished by easily recognized variations in the forms of certain letters. To the labours of Dr. Levy of Breslau and of the Comte de Vogüé we owe the establishment of this cardinal fact, and of the conclusions which follow from it. A clear understanding of the distinction between the two types, and of the relations which subsist between them, being imperatively necessary for the student of Semitic epigraphy, it may be convenient to treat this problem, which lies on the threshold of the subject, as a representative instance, and instead of merely giving,

[1] Not reckoning the later Punic inscriptions, of which he catalogues 117, Schröder, writing in 1869, enumerates from Phœnicia 5, from Cyprus 40, from Athens 6, from Malta 5, from Sardinia 10, from Sicily 4, from Egypt 14, from Carthage 119, from Gaul 1; in all 208. The rapid progress of discovery may be inferred from the fact that Gesenius in 1837 was only able to give 33 from Cyprus, 3 from Athens, 4 from Malta, 1 from Sardinia, 2 from Sicily, 10 from Carthage, and 1 from Gaul; while the first fasciculus of the *Corpus Inscriptionum Semiticarum*, published in 1881, contains as many as 9 from Phœnicia, and 87 from Cyprus.

as in other cases, a statement of ascertained results, to take the opportunity of setting forth in some detail the arguments and the methods of investigation by means of which the conclusions now generally accepted have been obtained. It is most instructive to learn how a set of inscriptions, which even to great scholars like Kopp and Gesenius were a mere chaos, have been gradually reduced into an ordered chronological sequence.

In the early Phœnician inscriptions we find, as has been said, two well marked alphabetic types. As representatives of these two types, we are fortunately able to take two monuments of Semitic palæography which are of almost unrivalled interest and importance.

For the first type, which may be provisionally designated as the MOABITE alphabet, we have the great inscription of Mesha, king of Moab. To the second type, which commonly goes by the convenient name of the SIDONIAN alphabet, belongs the record engraved on the sarcophagus of Eshmunazar, king of the Sidonians.[1]

The distinction between the two types extends to at least fifteen out of the twenty-two letters of the alphabet. Ten of these letters, which exhibit the most definite characteristic differences, may conveniently be used as tests by which to dis-

[1] Facsimiles of portions of these two standard inscriptions will be found on pp. 208, 221. The two alphabets are given in columns x. and v. of the Table on p. 227.

	Moabite.	Sidonian.
Mem		
Shin		
Gimel		
Zayin		
Yod		
Lamed		
Qoph		
Samekh		
Tau		
Kaph		

criminate between the two classes of Phœnician inscriptions.

It will be seen that the differences are to some extent systematic. In the letters *mem* and *shin* the Moabite trace is a zigzag, while in the Sidonian we have a lateral line intersected by a nearly vertical cross stroke. In the Sidonian type the three letters *gimel*, *zayin*, and *yod*, are prone instead of erect. The remaining letters exhibit more cursive forms in the Sidonian alphabet.

The difference between the two types must either be chronological, one of the types having been evolved out of the other, or it may conceivably be geographical, the Moabite type prevailing among the inland tribes of Syria, while the Sidonian was employed in the cities of Phœnicia.

The geographical hypothesis is not without plausibility. All the inscriptions from the cities of Phœnicia, as well as the much larger number which come from Carthage, belong without exception to the Sidonian type, while to the Moabite type, which is used in the inscription of Mesha the 'sheepmaster', and in some

early inscriptions from Nineveh, belongs the alphabet used by the Jews down to the time of the Captivity, which actually survives in the modern Samaritan alphabet. It is plain that both types are of great antiquity, and that both continued in use side by side in different regions for several centuries. It might seem to be a reasonable supposition that the distinction between the two alphabets originated in Egypt, the Moabite alphabet having been transmitted by the Hyksos shepherds to the inland tribes, while the Sidonian alphabet may have been conveyed by sea to Sidon from the Phœnician trading colony of Caphtor in the Delta.

The fatal objection to this hypothesis is that the Greek alphabet, which could only have been obtained from Phœnician trading posts in the Ægean, belongs decisively to the Moabite type. This alphabet is also used in a Phœnician inscription from Sardinia, and in another from Malta. Hence there is no escape from the conclusion that the Phœnicians must at some period have employed an alphabet of the Moabite type, so that the non-existence of any inscription from Phœnicia written in this alphabet must be a matter of mere accident.

The distinction between the two types must therefore be chronological, one of them having been evolved out of the other. There is no difficulty in deciding to which the priority belongs. The inscriptions in the Sidonian alphabet to which definite dates

can fairly be assigned, are, all of them, subsequent to the destruction of the Tyrian hegemony by Nebuchadnezzar in the 6th century B.C., whereas the Moabite inscription belongs to the 9th century, and the Greek alphabet affords evidence that at the still earlier period at which it was acquired the Sidonian alphabet was not employed by the Phœnicians. A comparison of the test letters of the Moabite and Sidonian alphabets leads to the same conclusion (see p. 201). The Sidonian forms of *qoph*, *yod*, *samekh*, and *zayin*, for instance, are evidently merely modifications of the lapidary Moabite forms due to centuries of cursive use.

A still more decisive argument is derived from the fact that it is possible to point to dated inscriptions which exhibit certain letters in forms intermediate between the two types. The examples of this transitional alphabet are obtained, strange to say, from regions so remote as Nubia and Nineveh. From Nubia we have inscriptions scrawled on the knees of the colossal statues of Rameses II. at Abu Simbel, by the Greek, Carian and Phœnician mercenaries of Psammetichus, towards the end of the 7th century B.C. From Nineveh come the well known bronze lion-weights, engraved with bilingual records in Phœnician and Cuneiform, on which may be read the names of Assyrian monarchs, such as Tiglath Pileser and Sennacherib, who reigned in the 8th and 7th centuries B.C. To the 7th century also belong Phœnician dockets and signatures attached to certain cuneiform contract

tablets, stored in the Record Office of the Assyrian kings, which bear eponymic dates. These inscriptions are written in a transition alphabet. They prove that at the time when they were written the characteristic features of the Sidonian alphabet were only partially developed, and they exhibit the stages through which the older forms passed into those which succeeded them.

This evidence is so curious and so conclusive, and it supplies moreover such a useful lesson to the student who is endeavouring to master the elementary principles of palæographic induction, that it may be worth while to give in parallel columns the forms of the test letters which exhibit these three successive stages in the development of the Phœnician alphabet. The first column contains the Moabite letters of the 9th century; the second shows the transitional forms of the 8th and 7th centuries, as obtained from Nubia and Nineveh; while in the third

	First Epoch.	Transition.	Second Epoch.
	Moab.	Nubia & Nineveh.	Sidon.
	9th century	8th and 7th centuries.	5th century
Mem			
Shin			
Gimel			
Zayin			
Yod			
Lamed			
Qoph			
Samekh			
Tau			
Kaph			

column will be found the final forms of the Sidonian alphabet, which are certainly not earlier than the Phœnician conquests of Nebuchadnezzar in the 6th century, or later than those of Alexander in the 4th. The successive forms assumed by the letters *tau*, *yod*, and *shin* will be found specially instructive.

The forms of these ten test letters constitute a rough standard by means of which approximate dates may be assigned to the earlier Phœnician inscriptions.

To the oldest Phœnician type the provisional name of the Moabite has been hitherto applied, but it is plain that we may now substitute the more comprehensive appellation of the TYRIAN alphabet, since this must have been the alphabet which prevailed in Phœnicia during the period of the commercial and colonial ascendancy of Tyre. For the second type the accepted appellation of the SIDONIAN alphabet need not be disturbed, while the term PHŒNICIAN may be used generically to include both types.

The fact that the Israelites and Samaritans, as well as the Greeks, continued for many centuries after the evolution of the Sidonian forms to use alphabets which exhibit test features of the earlier type, must be explained on the theory of arrested developments, arising from special causes.

The relative priority of the two types of the Phœnician alphabet having thus been determined, it remains to give an account of the epigraphic materials from which a continuous history of the Phœnician alphabet has to be constructed.

§ 2. THE INSCRIPTIONS OF THE FIRST EPOCH.

The monuments hitherto discovered which belong to the first or Tyrian epoch of the Phœnician alphabet are extremely few. Of these, the great inscription of Mesha, king of Moab, ranks first, if not absolutely in order of time, at all events in its importance. It is almost unique in its historical interest; its philological value is great; while from the palæographical point of view its significance can hardly be overrated, owing to its great antiquity, to its definite date, and to the certainty with which, by reason of the hardness of the material on which it is engraved, the forms of the letters can be determined. The considerable length of the inscription supplies examples of all but one of the letters of the ancient alphabet, while the repeated occurrence of most of the letters renders it easy to eliminate mere variant or accidental forms, and thus to determine the normal alphabet of this early period.

The history of the discovery of this inscription is so well known that it need not be repeated at any length. In the summer of 1868, Mr. Klein, of the Church Missionary Society, in the course of an expedition to the east of the Dead Sea, arrived at the site of Dibon, the ancient capital of the land of Moab. Close to his encampment the Arabs of his escort showed him a block of black basalt, 41 inches in height, and 21 in width, with an inscription running in 34 horizontal lines. Mr. Klein copied a few letters, but does not seem to

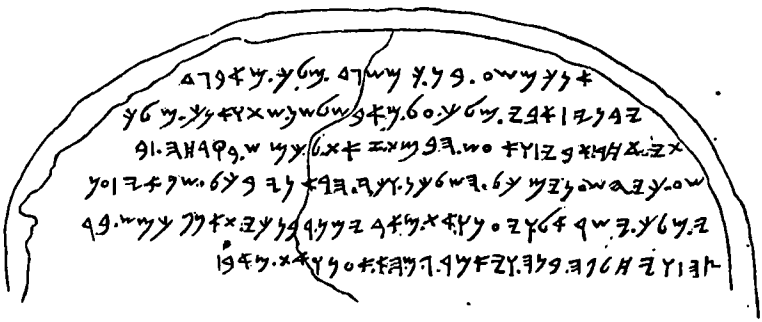
have appreciated the significance of his discovery, and it was only after his return to Jerusalem that its real importance was suspected.

Owing to the unwise competition of the French and German consulates to secure the treasure, and a consequent attempt of the Turkish governor of Nablus to get it into his own possession, this precious monument, which had defied the corrosion and the accidents of 2700 years, was broken up by the Arabs, and the pieces distributed among the several families. Nearly forty of these fragments, containing altogether about two-thirds of the whole inscription, have been recovered, so that the damage has not proved so irreparable as was feared at first. The collected fragments, together with a somewhat imperfect squeeze taken before the stone was broken up, and an early eye-copy of a portion of the inscription, are now exhibited side by side in one of the ground-floor rooms at the Louvre.

The general purport of the inscription can thus be ascertained with very tolerable certainty, while for mere palæographic purposes the larger fragments supply almost all the evidence that can be desired.

The subjoined facsimile of the first few lines of the inscription is on a scale of about one-fifth of the original. It will be seen that the words are divided by dots, and the sentences by vertical strokes.

A transliteration into square Hebrew characters, and a version founded on the translations of Haug, Derenbourg, Nöldeke, Schlottmann, and Ginsburg are appended.



THE MOABITE STONE.[1]

אנך משע . בן . כמשגד . מלך . מאב [ה]ד
יבני | אבי . מלך . על . מאב . שלשן . שת ואנך . מלך
תי . אחר . אבי | ואעש . הבמת . זאת . לכמש . בקרחה . | ב[.....]
שע . כי . השעני מכל . השלכן . וכי . הראני בכל . שנאי | עמ
[ר]י . מלך . ישראל . ויענו . את . מאב ימן . רבן כי . תאנף כמש . בר
צה | ויחלפה . בנה . ויאמר . גם . הא . אענו את . מאב |

TRANSLATION.

1. I am Mesha, son of Kamoshgad, king of Moab, the D-
2. -ibonite | My father reigned over Moab thirty years, and I reign-
3. -ed after my father | And I erected this altar to Kamosh (Chemosh) on the plain [....]
4. [Sa]lvation .... because he saved me from all dangers, and because he let me see my desire on all my enemies.... Om-
5. -ri, king of Israel, oppressed Moab many days, for Kamosh was angry with his lan-
6. d | And his son succeeded him, and he also said, I will oppress Moab |

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[1] For the benefit of readers who may not be familiar with the square Hebrew characters, and as an illustration of what has been said in the preceding chapter, § 3, on the consonantal nature of Semitic writing, the first sentences of this inscription may be trans-

The date of this inscription can be ascertained with tolerable exactness.[1] Mesha begins by an account of the subjection of Moab to Israel, which lasted for forty years. It began in the reign of Omri (929–918), continued during the reign of his son Ahab (918–897), and must have come to an end during the reign of his grandson Jehoram (896–884), soon after the campaign of Jehoram and Jehoshaphat, narrated in 2 Kings iii., which was undertaken to put down the rebellion of Mesha. This war must have taken place at the beginning of Jehoram's reign. In the book of Kings we read how he devastated the land of Moab, destroyed the cities, filled up the wells, and laid waste the fields. Mesha threw himself into the fortress of Kir Harosheth, south of the Arnon, and in his despair sacrificed his eldest son upon the wall. "And there was great indignation against Israel; and they departed from him, and returned to their own land." Mesha then carries on the narrative, and tells us how he

literated into Roman letters as follows, the omitted vowels being denoted by italics:—

ANOKi MeshA . BeN . KaMoshGaD . MeLeK . Mo'AB [He] D-IBoNI | 'ABI . MaLaK . 'AL . Mo'AB shLishiN . shaT V'ANOKi . MaLaK-TI . 'AChaR . 'ABI |

It will be seen that even at this early period the weak consonants were employed to denote the cognate vowel sounds. The alphabet of this inscription is given in col. x. of the table on p. 227. For details, see Nöldeke, *Die Inschrift des Königs Mesa von Moab* (Kiel, 1870); Ginsburg, *The Moabite Stone* (1870).

[1] The conventional Chronology, and not that of the Assyrian Canon, is here employed for reasons of obvious convenience.

recovered from Israel the border fortresses of Ataroth, Nebo, and Jahaz, how he destroyed the inhabitants, and devoted to Kamosh (Chemosh) the vessels of Jehovah. The second part of the inscription gives an account of the public works undertaken on the termination of the war; the rebuilding of the cities which had been destroyed, the construction of a road over the Arnon, the building of the royal palace, and of the walls, gates, and towers of the citadel. The third part of the inscription, which is less legible, contains the record of a subsequent war against the Edomites.

It is plain that the inscription must be referred to the beginning of the 9th century, and the year 890 B.C. has been generally accepted by scholars as an approximate date, since the events which it relates seem to have taken place during the six or seven years which followed the death of Ahab in 897.

Although the Moabite stone, from its historical importance and its very definite date, must rank first among Semitic inscriptions, its claim to be considered as the most ancient of alphabetic records is more than doubtful. This honour belongs, in all probability, to the newly discovered inscriptions on certain fragments of the sacred vessels from the Temple of Baal Lebanon.

In 1876 M. Clermont-Ganneau was so fortunate as to obtain from M. Laniti, a merchant of Limassol in Cyprus, some battered fragments of bronze plates inscribed with Phœnician characters. Laniti had purchased them from a dealer in old iron who had bought

them from a peasant, by whom they had been found, in 1872, about a foot below the surface of the soil near the summit of a mountain distant some twenty miles from Limassol. The peasant had broken the metal in order to ascertain whether it was gold, and had given the pieces to his children as playthings, and some of them had thus been lost.

Eight inscribed fragments were recovered, and are now among the choicest treasures of the Cabinet des Antiques in the Bibliothèque Nationale at Paris. A most ingenious restoration has been effected by the skill and patience of MM. Renan and Clermont-Ganneau, and it appears that six of the fragments must have formed consecutive portions of an inscription running round the exterior convex rim of a thin hemispherical bowl or patera, about a foot in diameter. The two other fragments evidently belonged to separate inscriptions. It was at once seen, from the form of the letters, that the writing was considerably older than any known Phœnician inscription, and only comparable in antiquity with the Moabite stone itself. The interest and importance of the discovery were greatly enhanced when the writing came to be deciphered. The longest inscription states that "this vessel of good bronze was offered by a citizen of Carthage, servant of Hiram, king of the Sidonians, to Baal Lebanon, his Lord." Portions of this record are repeated in the shorter inscriptions. One of them contains the words "citizen of Carthage," and the other

"to Baal Lebanon, his Lord." Such familiar and historic names as Hiram, Carthage, Lebanon, and Sidon, naturally excited a keen curiosity. It was manifest that these laminæ of bronze must have formed portions of the sacrificial vessels belonging to a temple on Lebanon, which had no doubt been pillaged during some war between Cyprus and Phœnicia, the spoils being deposited in one of the mountain sanctuaries of Cyprus.

Hill-worship was a habitude of the Syrian nations, and the temple of Baal Lebanon must have been itself one of the "High Places" dedicated to the mountain Deity. We have a record in the Book of Kings of the worship of Baal on Mount Carmel, and the name of Baal Hermon is strictly analogous to that of Baal Lebanon.

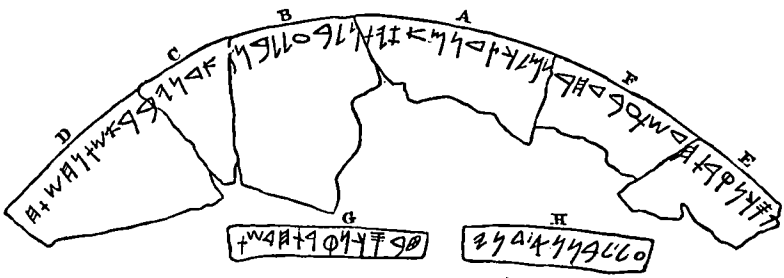
It is not necessary to suppose that the town of QARTaChaDashaT, or Carthage, was the celebrated Tyrian colony in Africa, which can hardly have been founded at the remote period at which these inscriptions were written,[1] but Carthage, or 'Newtown,' cannot have been an uncommon name in Phœnicia, and may have been applied to one of the suburbs of Tyre or Sidon, in contradistinction to Palæ-Tyrus or Palæ-Sidon.

Renan seems to be of opinion that it is by no means

[1] Carthage was probably founded about the beginning of the 8th century, whereas the palæography of these inscriptions place them at least as early as the beginning of the 9th.

improbable that the "Hiram, king of the Sidonians," mentioned in the inscription may be identified with the Hiram, king of Tyre, who was a contemporary of David and Solomon. This conclusion must depend on the palæographical evidence, which therefore demands a careful examination.

The subjoined facsimiles of the inscriptions on the eight fragments, as now pieced together by MM. Clermont-Ganneau and Renan, are on a scale of about one-third of the size of the original.



THE BAAL LEBANON INSCRIPTIONS.

The fragments marked E F A B C D evidently fit together, and form portions of a continuous inscription, which may be transliterated and translated as follows:—

. . . . . v SOKEN QARTAchaDAshaT, 'ABED chiRa[M] MELEK TṢiDONiM, 'AZ YTEN LE BA'AL LEBANO[N] 'ADONAI, BR'AShET NEchuSHaT ch . . .

". . . . . v, a citizen of Newtown, servant of Hiram, king of the Sidonians, gave this to Baal Lebanon his Lord, of good brass."

The fragments G and H read:—

. . . . ṬOB SOKeN QaRTaCHaDaSHaT . . . .

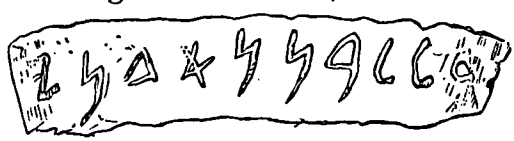
"... tob, a citizen of Newtown."

. . . . ʿAL LeBaNON ʾADONaI . . . .

"[To Ba]al Lebanon his Lord."[1]

With regard to the date of these inscriptions, it is obvious that no absolute reliance can be placed on the mention of Hiram, king of the Sidonians, since more than one Phœnician king may have borne that name. Palæographical considerations must therefore be brought to bear.

The writing on the fragment marked H, which is here reproduced on the same scale as the original,



[1] Judging from the workmanship and material, the fragments marked G and H may have formed portions of the same vessel. The bronze of the other six fragments, E F A B C D, is thinner and of different composition. On the other hand, the writing on G is of the same palæographic age as the longer inscription, and different from that on H, which closely resembles the writing on the Moabite stone. Hence there must have been at least two vessels, bearing contemporaneous dedications from the 'citizen of Qartachadashat,' while H may either have been a separate dedication on the same vessel as G, or may have belonged to a third vessel. It is supposed that *soken* denotes a local functionary of some kind; 'senator' or 'official' might probably be the best translation. The word *nechushat* is familiar to us from 2 Kings xviii. 4, where we read that Hezekiah brake in pieces the brazen serpent, and called it *Nehushtan*, translated in the margin 'a piece of brass.'

is evidently of different date from that of the other inscriptions, and, judging from the forms of *nun* and *lamed*, must be of nearly the same age as the Moabite stone. On the other fragments the writing is less cursive in character, and therefore presumably older. The relative age of the Moabite and Baal Lebanon inscriptions must however be determined mainly by a comparison with the primitive Greek letters. According to this test the priority must be adjudged to the Baal Lebanon forms.

	Greek.	Baal Lebanon.	Mesha.
Cheth			
Tau			
Daleth			
Zayin			

Thus in the case of *cheth* the Baal Lebanon form agrees with the Greek in having three horizontal bars instead of only two; following in this the Hieratic prototype (see p. 114). With regard to *tau*, the older form seems to have been a Latin cross, with the bars of unequal length, the longer being vertical. The Baal Lebanon *zayin* is extremely primitive. It occurs in a very ancient Locrian inscription, and is found in some of the oldest Etruscan tombs, while it approximates more nearly than the later forms to the Hieratic prototype. The remarkable oval shape of *'ayin* ⊃ is probably more ancient than the usual circular form, and may be regarded as a survival of the primitive ideographic picture of an "eye" (see p. 116). No certain conclusions can be

drawn from *lamed*, owing to the early transformations which this letter underwent. The Baal Lebanon *mem* and *nun* are decidedly less cursive than on the Moabite stone, and are almost identical with the earliest Greek forms.[1]

Hence on palæographical grounds it is manifest that the first seven fragments from the Temple of Baal Lebanon are decisively older than the Moabite stone. As far as a judgment can be formed on such a matter, it may be admitted that the priority may be as much as a hundred years, which would enable us to identify the Hiram of the inscription with the Hiram who was the contemporary of Solomon. We should thus obtain the beginning of the 10th century or the end of the 11th as the date to be assigned to the most ancient extant monument of the Semitic alphabet.

The attribution of the Baal Lebanon inscription has been necessarily determined mainly from considerations of a palæographic nature, the force of which can be fully appreciated only by experts; but we fortunately

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[1] The most complete account of the Baal Lebanon inscriptions will be found in the *Corpus Inscriptionum Semiticarum*, pp. 22–26, and plate iv. See also Renan, in the *Journal des Savants* for August, 1877; and Clermont-Ganneau, in the *Athenæum* for April 17th, 1880. The facsimile on page 213 is reduced from the phototype in the *Corpus I. S.*, which leaves nothing to be desired in the way of accuracy. The alphabet given in col. i. of the Table on p. 227 is not so correct, having been taken from the eye-copy in the *Journal des Savants*, which was the only facsimile available at the time when the Table was engraved.

possess, in addition to the Moabite stone, a few scanty records in the primitive Phœnician alphabet to which fixed dates can be assigned on historic grounds which do not admit of being impugned. Among these early monuments the Assyrian lion weights, to which reference has already been made, must be placed first, insomuch as the earliest of them are nearly coeval with the Moabite stone itself.

In his first expedition Layard discovered at Nimroud fifteen bronze lions, varying in weight from nearly forty pounds Troy down to a few ounces, which apparently formed the metrical standards of Assyria. Most of them bear bilingual legends in Cuneiform and Phœnician characters, which unfortunately are in several cases so corroded as to be almost or quite illegible. The Cuneiform inscription usually gives the name of an Assyrian king, while the Phœnician legend records the weight. The lions are of different dates, but the Cuneiform and Phœnician inscriptions on each lion are undoubtedly contemporaneous. The Cuneiform legends, so far as they have been deciphered,[1] give us the names of four kings who reigned between 745 and 681 B.C., namely, Tiglath Pileser II., Shalmaneser IV., Sargon II., and Sennacherib. The lion weights therefore furnish a chronological series of monuments of the Phœnician alphabet extending over

[1] The earlier attributions to Assur-izir-pal and Shalmaneser II., 885 to 825, are now believed to be erroneous. See Madden, *Coins of the Jews*, p. 5, note.

nearly a century. Apart from their palæographic value, these records are of great interest, as showing that the Phœnician alphabet must have been in common use at Nineveh for commercial purposes, side by side with the Cuneiform, as early as the middle of the 8th century B.C.

To exhibit the practical identity of the Assyrian with Phœnician forms, one of the earliest of these inscriptions is here reproduced on the same scale as the original. The inscription is that on the eleventh lion, which weighs a little over twenty ounces, and therefore represents a single maneh. This accords with the legend, which reads MANEH MELEK, "a maneh of the king." The name of the king is not very legible, but is read by Prof. Sayce as Shalmaneser (727 to 722).

There is another record in the old Phœnician alphabet to which, owing to a curious accident, we are able to affix a date. It is an inscribed scarab, now in the Louvre, which was found in the sand beneath the foundations of one of the great human-headed bulls which formed the portals of the Assyrian palace at Khorsabad. This palace was built by Sargon, the conqueror of Samaria, and father of Sennacherib. Sargon reigned from 722 to 705 B.C. Hence this scarab, which may have belonged to one of the

[1] See the paper by Mr. Norris in the *J. R. A. S.*, vol. xvi. (1856), p. 215 seq. The plate in Layard's *Nineveh and Babylon*, p. 601, is less satisfactory.

captives from Samaria employed in the construction of the palace, must be at least of the 8th century, and possibly of still older date. It bears simply the name of the owner: OBED BA'AL, "the servant of Baal."

The monuments which have been enumerated are the only inscriptions of the first epoch to which dates can be assigned on external evidence. It is by comparison with these dated monuments that the few remaining inscriptions in the Tyrian alphabet can be classified. These consist chiefly of scarabs and cylinders, seals and gems, from Babylon and Nineveh, with a few from the cemeteries of Phœnicia.[1] There are also two or three longer inscriptions. The oldest, which was found at Nora,[2] in Sardinia, must be more ancient than the foundation of Carthage, and there are two from Malta of somewhat later date.[3]

Such are the scanty records as yet known which belong to the first or Tyrian epoch of the Phœnician alphabet. They extend over about three centuries, from the beginning of the 10th to the beginning of the 7th B.C. Almost all of them have been discovered in comparatively recent times, and it may be expected that others will be found when the Tyropœon is excavated, or when the cemeteries of Phœnicia and the

[1] They are figured and discussed by Levy, *Phönizische Studien*, Heft ii.

[2] Gesenius, *Monumenta*, plate 13; Schröder, *Phönizische Sprache*, p. 250; Levy, *Phönizische Studien*, Heft iii.; Halévy, *Mélanges*, p. 87.

[3] Gesenius, plate 8.

lands east of the Jordan have been more thoroughly explored. The vast ruins of Rabboth Ammon, for example, might well yield a rich harvest to some future traveller.

§ 3. THE INSCRIPTIONS OF THE SECOND EPOCH.

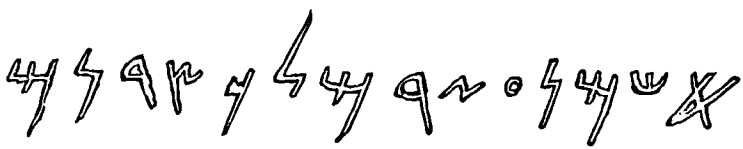
The inscriptions written in the second or Sidonian type of the Phœnician alphabet are naturally more numerous than those which can be assigned to the first epoch; in fact, far the greater number of extant Phœnician monuments are in this character, so that a selection only need here be made of those which possess special historic or palæographic interest.

One of the earliest and lengthiest is the dedication of a bronze altar and a golden shrine by Yehaumelek, king of Gebal (Byblos), which was found in 1869. This inscription may probably be assigned to the 6th century, but unfortunately the letters have become so indistinct, owing to the corrosion of the limestone slab on which they are engraved, that the value for palæographic purposes is much diminished.[1]

It is very different with the great inscription on the magnificent sarcophagus of Eshmunazar, king of Sidon, which is now one of the glories of the Louvre. Owing to the hardness of the material, the depth and precision of the cutting, and the almost unexampled protection

[1] See the description and facsimile by Euting in the *Z. D. M. G.*, vol. xxx., pp. 132–137; and the excellent photolithograph in the *Corpus Inscriptionum Semiticarum*, plate 1.

from accident and weather, this inscription is in better preservation than almost any other that can be named. The alphabet in which it is written is given in col. v. of the Table on p. 227.[1] As a specimen of the writing, a few words are here given in facsimile on a scale of about one-third of the original. The designation of the deceased is thus written :—



which may be transliterated and translated :—

'AShMuN'AZaR MeLeK TSiDONiM

"Eshmunazar, King of the Sidonians."

The sarcophagus was found in 1855 in a tomb excavated in the flat range of limestone rock which formed the vast necropolis of ancient Sidon. It is cut out of a solid block of bluish-black basalt, and beautifully polished; displaying in colossal relief, after the manner of the mummy coffins of Egypt, the mask and shape of the deceased person. The inscription is in twenty-two lines, and its interpretation has tasked the skill of more than forty of the most eminent Semitic scholars of the day.[2]

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[1] This inscription is of special palæographic importance, having been chosen to supply the typical forms of the classical Phœnician alphabet used in the *Corpus Inscriptionum Semiticarum*. See Berger, in the *Journal Asiatique* for January, 1880.

[2] The literature connected with this inscription is overwhelming.

Eshmunazar speaks in the first person. He calls himself king of the Sidonians, son of Tabnit, king of the Sidonians, grandson of Eshmunazar, king of the Sidonians. He states that, together with his mother, the priestess of Ashtaroth, he had erected temples to Baal Sidon, Ashtaroth, and Eshmun. He beseeches the favour of the gods, and prays that Dora, Joppa, and the fertile corn-lands in the plain of Sharon, may ever remain annexed to Sidon. He declares that he now rests in the tomb which he has made, and imprecates curses on those who shall open the coffin or deface the inscription. Very touching is his plaintive cry, which reminds us of a similar utterance in the Book of Ecclesiastes, "I am cut off before my time, few have been my days, and I am lying in this coffin and in this tomb, in the place which I have built. Oh then remember this! may no royal race, may no man open my funeral couch, and may they not seek after treasures, for no one has hidden treasures here, nor move the coffin out of my funeral couch, nor molest me in this funeral bed by putting in it another tomb."

Apart from the pathetic human interest of this record, it is of special palæographic importance as the cardinal monument of Phœnician epigraphy. Hence

A bare list of the Memoirs that have been devoted to it would fill five pages of this book. The best account is in the *Corpus Inscriptionum Semiticarum*, pp. 9–20. There is a translation by Oppert in *Records of the Past*, vol. ix.

the evidence, archæologic, historic, and palæographic, bearing on its date must be examined with some care.

The material of which the sarcophagus is made, as well as the style of execution, shows that it was brought from Egypt. From the character of the art and the peculiar shape of the sarcophagus, M. Mariette, whose opinion on such a point few persons will venture to call in question, has pronounced that it cannot be more ancient than the twenty-sixth dynasty, a consideration which would bring it down to the 6th century B.C. The mention of Dora, Joppa, and Sharon, as forming part of the kingdom of Eshmunazar, points also to a time subsequent to the overthrow of the Jewish monarchy at the beginning of the 6th century. Then, since Eshmunazar states that he was king of the Sidonians, and that he reigned at Sidon, the inscription must be earlier than the conquest of Phœnicia by Alexander, after which event there was no king of the Sidonians; and, on the other hand, it must be later than the conquest of Tyre by Nebuchadnezzar, when the Tyrian supremacy over Sidon came finally to an end. The possible dates lie therefore between 580 and 330 B.C. But as the inscription was not written till the end of Eshmunazar's reign, and since both his father and his grandfather preceded him on the Sidonian throne, at least three generations must be allowed subsequent to the Babylonian conquest of Phœnicia; which would bring the inscription into the 5th century B.C. Lastly, a comparison of the Esh-

munazar alphabet with certain dated inscriptions from Cyprus, presently to be noticed, shows that Eshmunazar's reign may be placed with great probability in the latter part of the 5th century, or at the beginning of the 4th.

Of the remaining Phœnician inscriptions a briefer notice may suffice. We have a fragment of an inscription of Bodostratus, a Sidonian king, who must have reigned soon after Eshmunazar; and there is a long inscription, palæographically important, found by Renan at Um el-Auamid, a few miles south of Tyre, dated, according to the most probable computation, in the year 132 B.C. Cyprus has yielded a séries of records of Phœnician dynasts, several of which bear definite dates. The most notable are the inscriptions of Melekiathon and Pumiathon, father and son, who reigned at Citium and Idalion during the greater part of the 4th century. Pumiathon, as we learn from Athenæus (iv. 63), was on the throne during the siege of Tyre by Alexander, and died before 312 B.C. His reign must have been long, as we have an inscription dated from his thirty-seventh year, and a coin from his forty-sixth. In addition to eight inscriptions of Pumiathon, we have four of Melekiathon. One of these, a bilingual in Phœnician and Greek, now in the British Museum, is of special interest, as it gave the key by means of which the Cypriote syllabary was first deciphered. It is dated from the 4th year of Melekiathon, which would be about 375 B.C. The alphabet used in the

Phœnician version is almost identical with that of the Eshmunazar inscription, which must therefore be of nearly contemporary date. The last of the Cypriote inscriptions is dated from the thirty-first year of Ptolemy [Philadelphus], 254 B.C.

The 7th century inscriptions from Abu Simbel, one of which contains the name of Psammetichus, have been already noticed, and at Abydos there are numerous records left by Phœnician visitors at various dates. From the cemeteries of Athens we have five bilingual epitaphs which are proved by the character of the alphabet employed in the Greek versions to range from the 4th to the 1st century B.C. There are also several inscriptions from Malta, one of which, a bilingual in Phœnician and Greek, demands notice in any history of the Alphabet, as it gave the clue by which, in 1758, the Abbé Barthélemy, the father of Semitic epigraphy, succeeded in recovering the old Phœnician alphabet.

The chronological development and degeneration of the Sidonian alphabet is well illustrated by the legends on Phœnician coins, which extend in an almost unbroken series over some seven centuries, and serve as a standard by which the approximate dates of a large number of inscriptions can be determined.[1]

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[1] They have been classified and tabulated by the Duc de Luynes. See his Memoir in Prinsep's Essays, ii., p. 166, and plates xi. *a* and xi. *b*. The Phœnician coins may be arranged as follows:—

522–465 B.C. Coins of Aradus.

Such are the materials from which we have to construct the history of the alphabet of Phœnicia. Beginning in the reign of Solomon with the Baál Lebanon dedications, the long succession of monuments continues century after century, and ends at last with a coin struck at Tyre, during the reign of Antoninus Pius, in the year 153 of the Christian era.

§ 4. THE PUNIC ALPHABET.

The Punic was developed out of the Sidonian alphabet, from which at first it can hardly be distinguished. In its later stages it underwent extreme deformation, and ultimately became one of the most hopelessly illegible of scripts.

The Punic inscriptions, although numerous, are of comparatively little interest, being for the most part mere mortuary records, or votive dedications, of extreme brevity. The only inscriptions of importance are two very curious sacrificial tarifs, one of which was

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465–424 B.C. Coins of Tyre, and of Azbaal and Baalmelek, kings of Citium.

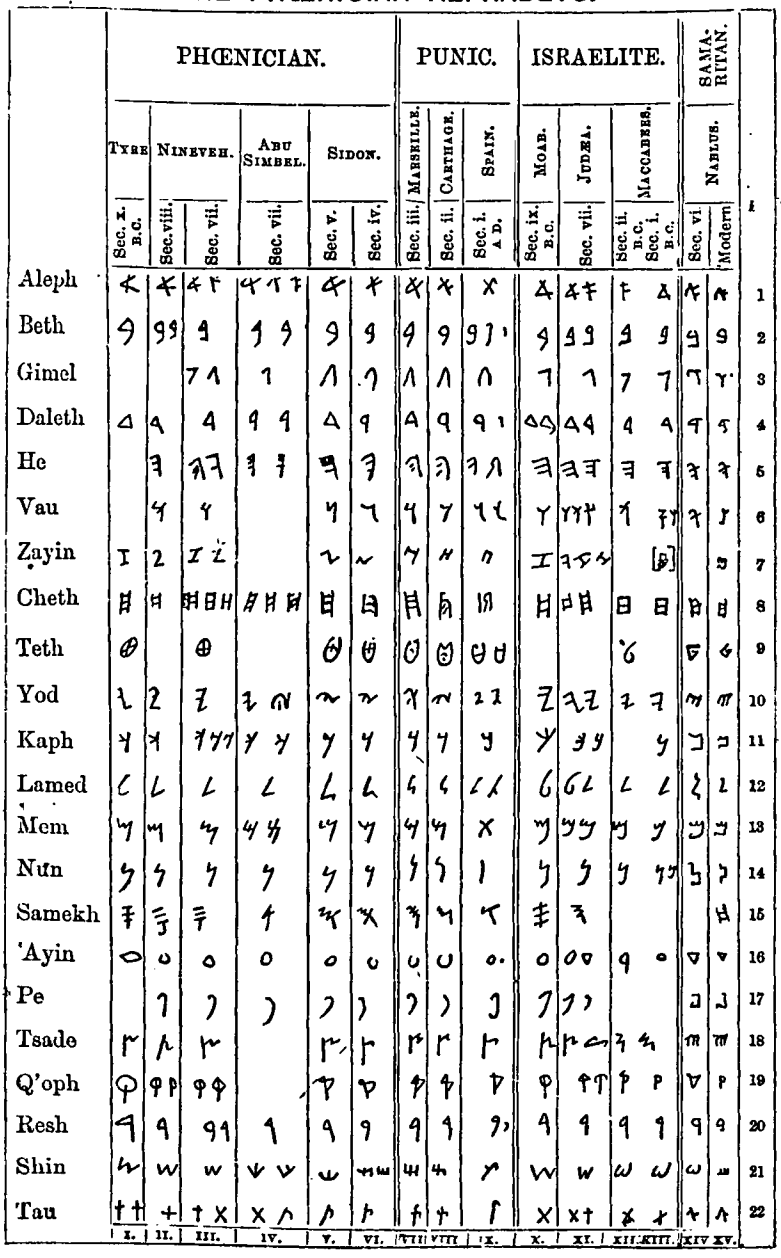
405–360 B.C. Coins of Gebal.

360–339 B.C. Coins of Artaxerxes Ochus, mostly struck at Tyre or Gebal for the payment of the Persian fleet in the expedition against Egypt.

312–145 B.C. Coins of the Seleucidæ, struck at Joppa, Acre, and Aradus.

145 B.C.–153 A.D. Coins struck at Tyre, Sidon, and Marathus, during the Roman period.

THE PHŒNICIAN ALPHABETS.



found at Carthage and the other at Marseilles. These tablets were evidently affixed to the walls of temples, and show how even the religious observances of this nation of traders were conducted on the strictest and most methodical principles of commerce. These tariffs were intended to regulate the dues of the sacrificing priests, and to determine the prices at which they were bound to supply the required victims to the worshippers. The prices afford curious evidence as to relative values, and as to the purchasing power of money. At Marseilles ten shekels were to be paid for a bull, and for a fowl three-quarters of a shekel and two sus. Assuming the shekel to contain 224 grains of silver, these prices would be equivalent to twenty-seven shillings for a bull, and about half-a-crown for a fowl; fowls therefore being as costly as they are now, while cattle were relatively much cheaper. The Carthaginian inscription assigns the skin of the victim as a fee to the priests, whereas at Marseilles it belongs to the worshipper. The date of these inscriptions seems to be the 3rd century B.C. Since none of the Punic inscriptions contains a date, the chronological arrangement of the successive alphabetic types has to be determined mainly from the evidence of coins. Of these we have a series ranging from the 5th century B.C. down to the 1st. The earliest dateable coins are from Sicily, the varying fortunes of the Sicilian wars making possible certain chronological inferences. Thus we have a coin of Segesta which must have been

struck soon after the year 410, when this city was taken by Hannibal. Then there is a coin of Motya, which must be prior to its destruction by Dionysius in 396. The coins of Palermo again must be earlier than 254 B.C., when the city was taken by the Romans. The coins of sundry Numidian princes carry on the chronological arrangement for another two centuries with tolerable certainty.[1]

About the middle of the 1st century B.C. the classic type of the Carthaginian alphabet disappears, and gives place to a cursive and degenerate style which is exhibited on the coins of the cities of northern Africa and Spain. This lasted till the third century A.D., when we lose all continuous trace of the wide-spread Punic alphabet, which at one time seemed almost as if it were about to become the mother alphabet of Europe. It has been conjectured that an obscure alphabet used by some of the nomad tribes[2] of the Sahara may be descended from the ancient Numidian script. With this doubtful exception the last surviving vestige of the commercial enterprise of Tyre, and of

[1] The chief dates are:—

225–204 B.C. Coins of Syphax.
148–60 B.C. Coins of the kings who succeeded Massinissa.
60–46 B.C. Coins of Juba.
50–33 B.C. Coins of Bochus.

[2] These are the Tuarick, who range from Fezzan to Timbuktu. Their alphabet, called the Tamashek or Tifanag, is given by Faulmann, *Buch der Schrift*, p. 39. See also Chavanne, *Die Sahara*, and Hanoteau's Tamashek Grammar.

the vast colonial empire of Carthage, which so profoundly influenced the civilization of the ancient world, is the almost undecipherable legend on a provincial coin struck in one of the remotest corners of Europe. This legend, which is given below, reads מלכא. The degraded alphabet of these Spanish and Mauretanian coins will be found in column ix. of the Table on p. 227.

LEGEND ON A COIN OF MALAGA.

§ 5. THE ALPHABET OF ISRAEL.

Till quite recently there was no department of Semitic epigraphy of which so little was actually known as of the ancient alphabet of Israel. Not a single inscription had been discovered, the conclusions of scholars being drawn mainly from a few engraved seals and gems of uncertain attribution. It was held that the ancient alphabet of Israel could not have differed materially from the contemporaneous alphabets of Moab, Phœnicia, and Nineveh, but this belief was a matter of inference rather than of evidence.

Ever since the time of Gesenius the opinion has prevailed that prior to the Captivity the Hebrews used an alphabet of the Phœnician type, which was replaced, after the return from exile, by an alphabet which is called in the Babylonian Talmud the "Assyrian" character. By this must be meant the Aramean alphabet, which prevailed throughout the

valley of the Euphrates, and ultimately became the parent of the modern square Hebrew, which from its employment in our Hebrew Bibles is the best known of all Semitic scripts. By a most ingenious argument, Gesenius showed that the earlier books of the Old Testament could not have been composed in the script in which we now possess them. He maintained that many obvious corruptions in the sacred text could only have arisen from the mistakes of copyists, who confounded certain letters which in the old Phœnician are very much alike, but are wholly dissimilar in the square Hebrew alphabet. For example, in the list of David's mighty men, given in 2 Sam. xxiii. 29, we find the name of Heleb, son of Baanah, a Netophathite, whereas in the parallel passage in 1 Chron. xi. 30, the name appears as Heled. It is plain that one of these readings must be corrupt. In square Hebrew the letters ב (*b*) and ד (*d*) cannot be mistaken for each other, whereas the old Phœnician forms, and , are often almost undistinguishable. Hence it appears that the original record must have been written in the Phœnician alphabet.

Convincing though such an argument might be, the actual epigraphic evidence bearing on the nature of the old Hebrew script was scanty in the extreme. Scattered over the Museums of Europe were about a score of engraved gems,[1] bearing names presumably

[1] The most interesting of these seals is one that is said to have been found in Ireland. The alphabet employed shows that it

Jewish, such as Obadiah or Remaliah, and these, on palæographical grounds, were attributed by Levy and de Vogüé, the chief authorities on the subject, to the period between the 8th and 5th centuries B.C. But it is manifest that a structure built on such attenuated foundations must be of doubtful stability.

Now, however, all this uncertainty has disappeared, and a happy chance has placed the whole science of Hebrew epigraphy on a firm and unassailable basis. The Siloam inscription, recently discovered at Jerusalem, is a monument of the early Hebrew alphabet whose authenticity is unimpeachable, and which stands unrivalled in antiquity and interest among Semitic records save by the Moabite stone itself, and by the vessels of Baal Lebanon.

The Siloam inscription was discovered in June, 1880, by a mere accident.[1] There is a very ancient tunnel, about a third of a mile in length, by which water is brought from the Virgin's Pool in the Kedron Valley to the Pool of Siloam in the Tyropœon. The tunnel pierces the ridge of Ophel, a spur of the

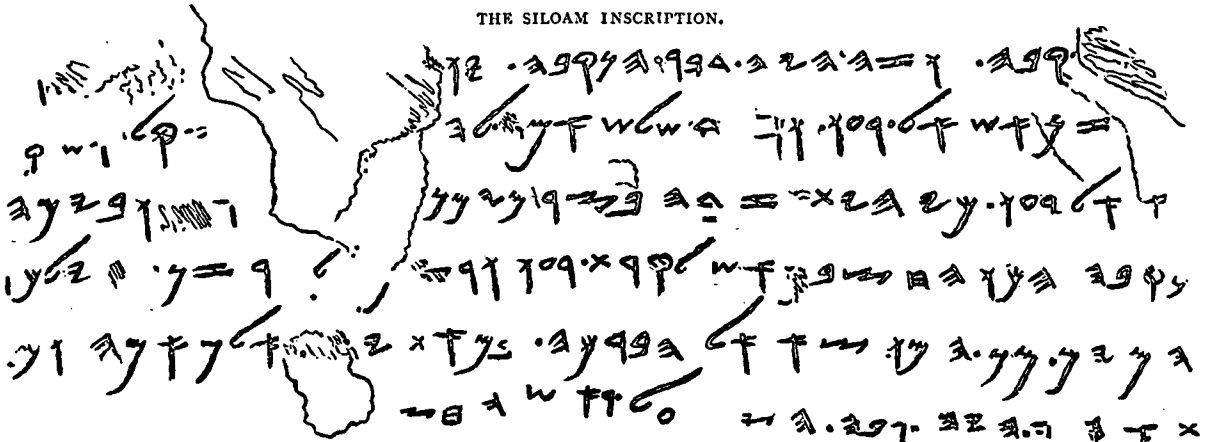
cannot be later than the 8th century B.C., and we may conjecture that the seal is a relic of an early adventure of Phœnician mariners. The legend reads, "Belonging to Abdalah, son of Shebat, the slave of Mitita, son of Tsadoq." A facsimile will be found in *J. R. A. S.*, new series, vol. i. p. 228. A fragment of an inscription, found at Siloam, addressed to "Baal of the Temple," is very curious and significant.

[1] The history of the discovery, and the fullest account of the inscription, will be found in the *Quarterly Statements* of the Palestine Exploration Fund for 1881.

Temple hill which divides the two valleys. In time of siege, when the surrounding district was in the possession of an enemy, this underground passage would convey a constant and copious supply of water from an exposed and inaccessible spring outside the walls to the safe and convenient Pool of Siloam, which, though beyond the modern wall, was inside the ancient rampart, which seems to have been built by Manasseh[1] to protect the lower pool of Gihon and the exposed entrance to the Tyropœon valley.

The inscription is engraved on a recessed tablet, cut in the wall of the tunnel a few yards from its lower end. The letters are rather more than half an inch in height, and deeply incised, but were so filled up with a deposit of lime as to be difficult to read in the uncertain light. Hence the earlier copies, made by persons unacquainted with Semitic palæography, were quite untranslateable. But Prof. Sayce, who happened to be in Jerusalem in February, 1881, succeeded in making an imperfect eye-copy, which was enough to show that the record was in pure Biblical Hebrew, and written in Phœnician characters, closely resembling those found on the Moabite stone and on the ancient seals. It was recognized at once that a Hebrew inscription of a date prior to the Captivity had at last been discovered, and that the uncertainties as to the nature of the alphabet of Israel would now be set at

[1] See 2 Chron. xxxiii. 14; Nehemiah iii 15.



1 [הן . הנ]קבה . וזה . היה . דבר . הנקבה . [בע]ו[ד החצבם העלו]
2 [הנר]זן אש אל . רעו . ו[בעו]ד . שלש אמ[ה] . לה[פ . . . . . מא] . קל . [א]ש ק
3 [ר]א אל רעו . כי זית . זדה בצר . מימן [קמו הכ]ו ביומה
4 נקבה הכו החצב[ם] . אש לקרת . רעו [נ]רז[ן א]ל [נ]רזן [ו]ילכו
5 המים . מן . המוצא אל הברכה . במאתי[. . .] . אלף אמה ו[. . . .]
6 ת א[מה] . היה . גבה . הצ[ר] על . ראש [החצב זה]

rest. Funds were at once forthcoming, the water in the tunnel was lowered, and the application of hydrochloric acid removed the stalactite encrustation by which the letters had hitherto been obscured, and at the same time preserved from the chances of accidental injury. A squeeze, a tracing, and a gypsum cast were then taken by the officers of the Palestine Exploration Fund. From these materials the inscription is here reproduced on a scale of about one-third of the actual size. A restoration, and a translation as proposed by Prof. Sayce, are added.

TRANSLATION.

1. [Behold the] excavation! Now this is the history of the tunnel. While the excavators [were lifting up]
2. the pick each to his neighbour, and while there were yet three cubits [to be broken through.] ... the voice of one call-
3. -ed to his neighbour, for there was [an excess?] in the rock on the right. They rose up ... they struck on the west of the
4. excavation, the excavators struck each to meet his neighbour pick to pick, and there flowed
5. the waters from their outlet to the Pool for the distance of 1000 cubits, and [three-fourths?]
6. of a cubit was the height of the rock at the head of the excavation here.

An examination of the tunnel throws light on the meaning of the record. The work of excavation must have been begun simultaneously from either end by two gangs of workmen. Near the middle of the tunnel are two *culs de sac*, showing that from want of

engineering skill the excavations overlapped, and the inscription is evidently intended to place on record the way in which the difficulty was remedied.

As to the date of the inscription, it is manifest that it must have been written towards the close of the Jewish monarchy. The forms of the letters show it to be later than the Moabite stone, but earlier than the inscription from Gebal. Hence it is generally agreed that it cannot be earlier than the 8th century or later than the 6th.

But these limits of date may to some extent be further narrowed. It has been shown (p. 201) that the chief palæographic test which distinguishes the two great epochs of the Phœnician alphabet consists in the change in the forms of the two letters *mem* and *shin*. During the first epoch both letters have the zigzag form and . In the second epoch they have a horizontal bar and a cross stroke, and . The transition took place in the 7th century, when there was a short period during which the letter *mem* exhibits the new form, while *shin* remains unchanged. It is precisely to this transitional period that the Siloam inscription must be referred.

We have to go to Nineveh for the dated monuments which yield these tests. On the two lion weights which bear the name of Sennacherib (705–681 B.C.) both of the test letters retain the primitive zigzag form. On certain contract tablets, executed during the reigns of Esarhaddon and Assurbanipal, bearing

dates ranging from 680 to 640 B.C., we find that *mem* has acquired the barred form, while *shin* is still zigzag.

The earliest examples of the barred form of *shin* are found on three tablets dated from the eponymies of Silim-assur and Sin-sar-uzur (650–640 B.C.). Hence the test forms found in the Siloam inscription prevailed at Nineveh from 680 to 640, a period which corresponds very closely with the reign of Manasseh (697–642). This then, so far as the palæographic evidence goes, is the period to which the Siloam inscription probably belongs.

This date is supported by historical considerations. Manasseh was taken captive by Esarhaddon (681–668), and after his return to Jerusalem he extended the southern and western defences of the city, and seems to have built the outer rampart, of which traces have recently been discovered, running along the ridge of Ophel, and enclosing the Pool of Siloam within the walls.[1] The apprehension of another Assyrian siege might suggest the advantage of a tunnel bringing the water of a copious spring into the city from the unprotected valley of the Kedron. Hence, if we suppose that the tunnel was made by Manasseh in connection with the extension of the walls, the agreement

[1] See Duncker, *Hist. of Antiquity*, iii. pp. 155, 208; and the passages already cited, 2 Chron. xxxiii. 11–14; Nehemiah iii. 15. The Mishna also states that the Pool of Siloam was within the walls. A full account of the various pools and conduits is given by Whitty, *Water Supply for Jerusalem*.

with the palæographical date supplied by the Nineveh inscriptions would be precise.

A second hypothesis, that the tunnel is to be identified with the conduit constructed by Hezekiah[1] at the end of the 8th century is not absolutely excluded by the palæographic tests, while in its favour strong and obvious historical arguments may be urged.

The objection to both these theories lies in the allusion in Isaiah viii. 6 to "the waters of Shiloah which go softly." This passage seems to imply that the tunnel was in existence in the reign of Ahaz, about 740 B.C., which would be sixty years too soon according to the palæographic tests from Nineveh, which indicate a date later than 680 B.C. No doubt the course of alphabetic development may not have been absolutely synchronous at Jerusalem and at Nineveh, but this consideration only increases the difficulty, since the alphabet of Israel, owing probably to the greater influence of religious ideas, was more conservative of the older forms than the commercial alphabet used at Nineveh.

The passage in Isaiah cannot however be considered decisive. The fact that the inscription states that the waters flowed into "the pool" shows that before the tunnel was constructed a spring already existed at Siloam, so that the work may have been undertaken to increase the flow, and obviate the complaint of

[1] See 2 Kings, xx. 20; 2 Chron. xxxii. 30; Ecclesiasticus xlviii. 17.

insufficient supply which was made in the time of Ahaz.[1]

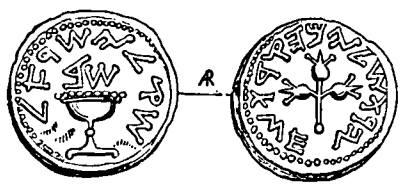
In any case the possible limits of date are not so very far apart, and we may conclude with some confidence that the inscription could not have been written before the middle of the 8th century, nor after the middle of the 7th.

From the Siloam inscription, taken in conjunction with the inscribed seals which bear Jewish names, we obtain the alphabet used by Israel prior to the Captivity (column xi. p. 227). In several respects it differs from other contemporary alphabets. The most distinctive features are exhibited by the letters *aleph*, *beth*, *vau*, *zayin*, *'ayin*, and *tsade*, whose peculiar forms were transmitted to their Samaritan derivatives (see p. 243). The alphabet of Israel was unusually conservative of the primitive forms. Thus the letters *he*, *lamed*, and *tau*, are almost the same in the Siloam inscription as on the Moabite stone, which is older by a century and a half; while the Siloam *cheth* with three bars, and the angular *'ayin*, are actually of a more archaic type than the Moabite forms, and take us back three centuries to the Baal Lebanon inscription.

On the return from exile the Jews are commonly supposed to have brought with them the Aramean alphabet used at Babylon, out of which the square

[1] The word Shiloah means "conduit" or "tunnel." Hence it is not by any means certain that in this passage it refers to what is known as the "Pool of Siloam."

Hebrew was ultimately evolved. Jewish tradition assigns the change to Ezra; but the old character must have continued in use for some fifty years later, inasmuch as the Samaritans, who did not possess the Pentateuch till the temple on Gerizim was built in 409 B.C. by Manasseh the priest, obtained it in the old character. It is doubtful whether the Hebrew scriptures were transcribed in the Aramean character before the 3rd century B.C. The older alphabet certainly continued to be employed for coins. We find it



SHEKEL OF THE "YEAR 2."[1]

on the oldest Jewish shekels, attributed by de Saulcy to Ezra, but now generally assigned to Simon Maccabeus.[2] It was also used on the coins which bear the names of John Hyrcanus and the other Asmonean

[1] The letters ש ב, over the jewelled cup, stand for *Shenath B*, "year 2," which has been shown by Dr. Merzbacher to mean the second official year of Simon's government, corresponding to 140 B.C. The legend round the cup reads שקל ישראל, "Shekel of Israel." On the reverse we read ירושלים הקדושה *Jerushalaim ha-kedushah*, "Jerusalem the Holy." The central device probably represents Aaron's rod. Madden, *Coins of the Jews*, p. 68.

[2] De Saulcy referred the coinage of the oldest of the silver shekels, which are dated in the years from 1 to 5, to the special permission to coin money which seems to have been granted to Ezra by Artaxerxes

princes,[1] (135 to 37 B.C.) in whose time there can be no doubt that the Aramean alphabet was in ordinary use in Judæa. The revival of the spirit of Jewish nationality sufficiently accounts for the retention of the ancient alphabet of Israel on the coinage of the Maccabean patriots. To a similar cause must be attributed the pseudo-archaic characters employed in the imitations of the old national coinage which were struck at the periods of the two great Jewish revolts—that, namely, which was suppressed by Titus, and that which was headed by Simon Bar-Cochab in the reign of Hadrian. But these very coins, some of which were struck over Roman *denarii*, supply internal evidence

COINS OF SIMON BAR-COCHAB[2] (132–135 A.D.).

that they were fabricated by moneyers who were only

Longimanus in 458 B.C. See Ezra vii. 18. Lenormant and Madden, who at first accepted de Saulcy's opinion, have recently pronounced in favour of the later date, which has been ably advocated by M. Six and Dr. Merzbacher. The question is discussed in Madden's *Coins of the Jews*, p. 44, note.

[1] The alphabet of these coins is given in columns xii. and xiii. of the Table on p. 227.

[2] The first of these coins bears the legend שמעון, "Simon," round a cluster of grapes. By turning the coin partly round, the back of the head of Trajan can be plainly seen. On the reverse are two trumpets, with the legend לחרות ירושלם, "the deliverance

imperfectly acquainted with the alphabet which they employed. Letters are malformed, or are actually turned the wrong way, and single letters are occasionally replaced by their Aramean equivalents.

But the most interesting survival of the ancient Hebrew script is that which has continued in use down to our own days among the little Samaritan community at Nablus, where a few families remain who have preserved many primitive Israelitish customs, who still celebrate the Passover with the ancient rites, and read the Pentateuch in the old character in which it was composed. For secular purposes the Samaritans employ the Arabic alphabet, which is ordinarily used in Syria. But the ancient sacred roll, enclosed in a silver case, from which every Sabbath-day the SCRIPTURES are read in their synagogue, is written in an alphabet which they call *Hebri* or *Hebreni*, and which they assert to be the ancient form of the Hebrew alphabet. There can be no doubt that this claim is essentially well founded. The ancient copies of the Pentateuch which the Samaritans possess date from the 11th to the 16th centuries A.D. But there is an inscription at Nablus, written in the reign of Justinian,

of Jerusalem." Below the trumpets is an arm holding a branch, which is part of the device on the reverse of the Roman coin. The second coin is superstruck on a coin of Titus, whose name can be read on the reverse TITVS CAES VESP. The Hebrew legends are the same as on the Trajan coin, but by mistake of the moneyer the two final letters of Simon's name have been transposed.—Madden, *Coins of the Jews*, pp. 235, 238.

	Siloam.	Samaritan.
Aleph		𐤀
Beth		𐤁
Gimel		𐤂
Daleth		𐤃
He		𐤄
Vau		𐤅
Zayin		𐤆
Cheth		𐤇
Teth		𐤈
Yod		𐤉
Kaph		𐤊
Lamed		𐤋
Mem		𐤌
Nun		𐤍
Samekh		𐤎
'Ayin		𐤏
Pe		𐤐
Tsade		𐤑
Qoph		𐤒
Resh		𐤓
Shin		𐤔
Tau		𐤕

which contains an abridged version of the Decalogue, and exhibits an alphabet practically identical with that of the oldest of the manuscripts. The two alphabets are shown side by side in columns xiv. and xv. of the Table on p. 227. Tracing back the alphabet of the Nablus inscription, we find it differs very little from that used on the shekels of the time of the Maccabees, and this again is not essentially different from the alphabet of the Siloam inscription, which may be considered as the actual alphabet in which the writings of the Jewish Prophets were composed. Placing side by side the Siloam letters and the corresponding types used for printing the Samaritan Bible, it will be seen how small are the actual changes which have been effected during so many centuries.[1]

[1] It will be observed that most of these changes can be accounted for by the necessity of preventing confusion between letters of similar outline. Thus

The Samaritan alphabet is perhaps the most remarkable illustration which can be found of the enormous period during which, under certain circumstances, an ancient alphabet may survive almost unchanged. Curiously enough, among all alphabets in actual use, the two which have adhered most closely to the primitive forms are the capital letters used in our own printed books and the alphabet of the Samaritans. Similar effects have however been produced by opposite causes. In the case of the Samaritan alphabet the conservation of the ancient forms may be attributed to the isolation of a small religious community, while the world-wide diffusion of the Roman alphabet is the chief cause that has kept it so true to the original type.

The Table on p. 227 exhibits the principal types of the Phœnician alphabet as obtained from the inscriptions which have been now described.

The cardinal monuments may be provisionally arranged in chronological sequence as follows :—

10th	cent. B.C.	Baal Lebanon bowl.
9th	„	Moabite Stone.
8th	„	Lion weights; Khorsabad seal; Nora inscription.
7th	„	Inscriptions of Siloam, Abu Simbel, and Malta.
6th	„	Gebal inscription; coins of Aradus.
5th	„	Eshmunazar inscription.
4th	„	Inscriptions of Melekiathon and Pumiathon.
3rd	„	Inscriptions of Athens, Marseilles, and Carthage.
2nd	„	Inscription of Um el-Auamid; Asmonean coins.

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the diacritical mark on the letter *daleth* 𐤃 serves effectually to differentiate it from *resh* 𐤓 and *beth* 𐤁, while *tsade* 𐤑 is similarly distinguished from *yod* 𐤉.

CHAPTER V.

THE ARAMEAN ALPHABETS.

§ 1. *Aram.* § 2. *Nineveh and the Satrapies.* § 3. *Egypt.* § 4. *Palmyra.* § 5. *Hebrew.* § 6. *Syriac.* § 7. *Mongolian.* § 8. *Arabic.*

§ 1. ARAM.

In the preceding chapter we have seen how the venerable Phœnician, the mother of all alphabets, gradually died out with the decline of the Phœnician empire and commerce. In Europe the inheritance fell to the Greek alphabet, the elder daughter of the Phœnician. Elsewhere the Phœnician was succeeded by the Aramean, which after serving for several centuries as the commercial alphabet of Asia, became the parent of the great literary Semitic alphabets—Syriac, Arabic, and Hebrew.

This well-marked branch of the Semitic alphabet, which arose in the 7th century B.C., bears the accepted and convenient designation of ARAMEAN, on account of its original development in Aram, the 'high-land' which lay to the north-east of Canaan, the 'low-land.' In its primitive acceptation Aram comprised

the hilly region of Mesopotamia between the upper waters of the Euphrates and the Tigris, as well as the table-lands of northern Syria.

The causes of the prevalence and wide diffusion of the local alphabet of Aram were partly political and partly commercial. The exchange of the products of Egypt and Babylonia, the two great centres of primitive civilization, was from very early times in the hands of the Phœnicians, the chief merchants and manufacturers of the ancient world. The caravan route by which this trade was conducted led from Sidon to Damascus, and thence by Emesa to Hamath. Crossing the Euphrates to Haran, it turned southwards to Babylon, or across by Nisibis to Nineveh. Hence for a great part of its length it passed through the Aramean highlands. The political decadence of the Phœnician cities which was consequent on the conquests of the later Assyrian kings, followed by the capture of Tyre by Nebuchadnezzar, dealt an irreparable blow to the commercial supremacy of the Phœnicians, and at the same time threw the lucrative trade between the Mediterranean coastlands and the valley of the Euphrates into the hands of the Arameans. Hence their language and their alphabet became the general medium of commercial intercourse throughout the Semitic regions of Western Asia.[1]

Other causes contributed to make the Aramean the

[1] The gradual extension, the ultimate decline, and final super-

official as well as the commercial alphabet of these regions. In the court, the army, and the administration of the later Ninevite kings, officials of Syrian extraction must have been nearly as numerous as those of pure Assyrian nationality, and the Aramean must have been the ordinary language and script which they employed.[1] The Assyrian monarchs are represented on their sculptures as accompanied by two scribes, one of whom apparently records transactions in the cuneiform writing, while the other uses the Semitic alphabet.

The Aramean alphabet found its way also into Babylonia, but at a somewhat later date. On bricks of Nebuchadnezzar and Neriglissar (560 B.C.) we have inscriptions in the Sidonian type of the Phœnician alphabet,[2] and it was not before the Achæmenian period that the Aramean language and script came into use in Babylonia.[3] But that Aramaic was recognized as one of the official languages of the later Babylonian kingdom appears from the fact that the decree given to Ezra for rebuilding the Temple at Jerusalem was written in this language.[4]

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cession of the Aramean language and influence are well shown in the maps given by Hommel, *Die Semiten und Ihre Bedeutung für die Kulturgeschichte.*

[1] See 2 Kings xviii. 26.

[2] Rawlinson, in *R. A. S. Journal*, vol. i., No. 8, pp. 228, 229.

[3] *Ibid.*, p. 238.

[4] Ezra vii. 12-28.

The Aramean type of the Semitic alphabet being thus widely used, side by side with the cuneiform, throughout the Assyrian and Babylonian empires, it naturally stepped into the vacant inheritance when the cuneiform writing died out. On the rearrangement of the map of the ancient world, which was the consequence of the conquests of Alexander, it took firm hold of those portions of the empire of the Seleucidæ which were not preoccupied by its great rival, the Greek alphabet. Inscriptions from localities so far apart as India and Egypt, coins from Cappadocia, Armenia, Persia, Arabia, and Bactria, attest its wide diffusion.

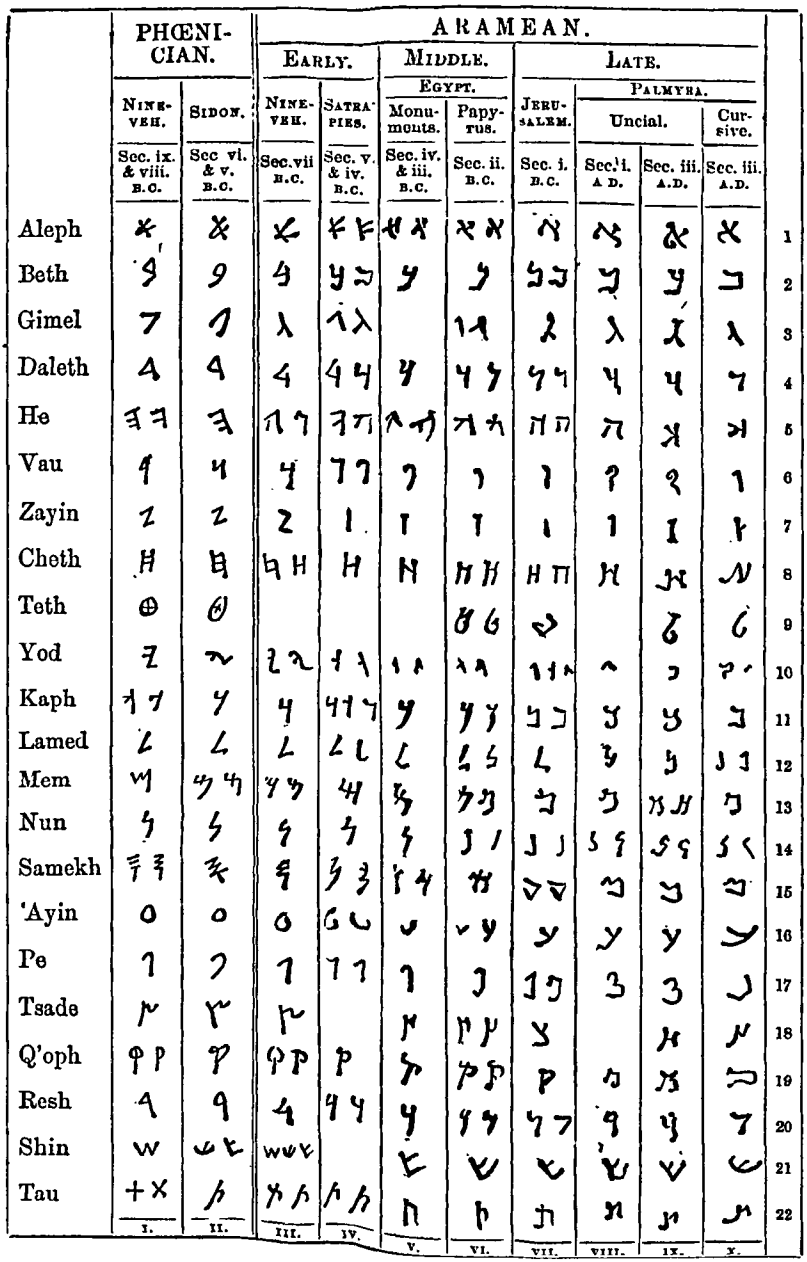
Having held sway for some seven or eight centuries, it ultimately broke up into a number of national alphabets, for which, owing chiefly to religious causes, a separate existence became possible. The later alphabets, the Parsi, the Hebrew, the Syriac, the Mongolian, and the Arabic, were at first local varieties of the Aramean. Owing to accidental circumstances they became the sacred scripts of the five great faiths of Asia, Zoroastrianism, Judaism, Christianity, Northern Buddhism, and Islam. Hence the descendants of the Aramean alphabet occupy a space on the map second only to that filled by the Latin alphabet itself. The Mongol alphabet is used at Pekin and at Astrakhan, the Parsi at Bombay, the Syriac in the Lebanon, on the Caspian, and in Malabar, while the local alphabet of Mecca is dominant from Sumatra to Morocco, from

Bochara to Zanzibar, and in the varieties known as Arabic, Turkish, Karmathian, Persian, Afghan, Baluchi, Hindustani, Malay, and Maghrebi has been adapted to languages of more various type than any other alphabet that can be named. As the alphabet of the Vulgate is now the alphabet of Europe and America, so the alphabet of the Koran has become the chief alphabet of Africa and Asia.

The importance of the Aramean alphabet is mainly historical, inasmuch as it became the parent of the three great literary alphabets of the East—Syriac, Hebrew, and Arabic. Itself everywhere extinct, it has left monuments extremely few in number, and these singularly destitute of interest. But its position with respect to the history of the alphabet is altogether different. Without its aid it would be impossible to trace with any certainty the affiliation of the more recent Semitic alphabets to the parent alphabet of Phœnicia. To us it presents itself as the great Alphabet of Transition, supplying the intermediate forms which explain how the cursive letters of existing Semitic scripts arose out of the monumental Phœnician characters to which they bear such slight external resemblance.

It will not be needful, however, to go at any great length into the obscure history of the Aramean characters, since a study of the Table on the following page will explain, better than any description, the successive stages of the deformation and degradation of the primitive letters.

AFFILIATION OF THE ARAMEAN ALPHABETS.



The tests by which the Aramean alphabet is distinguished from the Phœnician are not difficult to define. The most characteristic feature is the systematic opening of the loops of the closed letters. If the forms of *beth*, *daleth*, *teth*, *'ayin*, *qoph*, and *resh*, in columns i. and ii. of the Table, be compared with the derived Aramean letters in the succeeding columns, the reader will observe the progressive opening of the closed loops, which pass through the forms of concave curves till they finally become nearly horizontal lines. The same tendency to extreme cursiveness which destroyed the looped forms is also exhibited by other letters, as *he*, *vau*, *zayin*, *cheth*, and *tau*, which are apt to lose the distinctive bars which render so legible those alphabets by which they have been retained. The ultimate result of these processes of deformation may be seen by comparing a few letters of alphabets,

	Looped Forms.					Barred Forms.				
Roman	B	D	O	Q	R	Z	F	E	H	T
Samaritan	𐤁	𐤃	𐤏	𐤒	𐤓	𐤆	𐤆	𐤄	𐤇	𐤕
Hebrew	ב	ד	ע	ק	ר	ז	ו	ה	ח	ת
Syriac	ܒ	ܕ	ܥ	ܩ	ܪ	ܙ	ܘ	ܗ	ܚ	ܬ
Arabic	ب	د	ع	ق	ر	ز	و	ه	ح	ت
Zend	𐬛	𐬌			𐬭	𐬵	𐬎			𐬙

such as the Roman or the Samaritan, which were

unaffected by these influences, with the corresponding letters in alphabets of Aramean origin.

If it had so chanced that the ancient syllabary of Asia Minor had been superseded by the Semitic alphabet at a somewhat later date than was actually the case, the Ionian Greeks must have obtained their letters from their Aramean neighbours in Cilicia, and not from Phœnician traders. But in this case the distinctive loops and bars, which render the alphabets of Europe so legible when compared with the alphabets of Asia, would have been already irrecoverably lost, and the resulting ambiguity might easily have rendered our books as difficult to read as Arabic or Zend, and thus have quadrupled the existing troubles of schoolmasters and children.

§ 2. NINEVEH AND THE SATRAPIES.

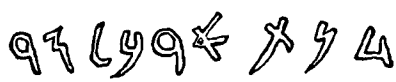
The earliest monuments which exhibit the distinctive peculiarities of the Aramean script come from those great storehouses of epigraphic materials, the buried palaces of Nineveh. On the site of what must have been once the Public Registry Office of the Assyrian kings were found an immense number of clay or terra cotta tablets inscribed with cuneiform records of legal transactions of all sorts, such as exchanges of property, leases of land, loans of money, or sales of slaves. On the outer edge of these tablets a docket is occasionally inscribed in alphabetic characters, containing a brief

reference to the contents, evidently for the purpose of enabling the keeper of the records to find any particular document in the archives where they were piled up. The docket either describes briefly the nature of the deed, or merely gives the names of the contracting parties. In addition to these alphabetic dockets, there are other tablets on which some of the witnesses have signed their names in Phœnician or Aramean characters, in some cases the names having apparently been inscribed on the soft clay with the thumb nail instead of with a style.

These contract tablets, with the possible exception of the records of the Egibi banking house at Babylon, are the most curious revelations which remain to us of the social life and the commercial transactions of these primitive times. One tablet, for instance, is the record of the loan of ten shekels of silver at usurious interest; another is the lease of an estate, consisting of lands, houses, gardens and orchards, for six years, at the annual rent of one maneh (nearly twenty-four ounces) of silver, equal to a little more than £6 of our own currency. Then we have warrant notes for the delivery of corn; the sale of a house for half a maneh of silver, and of three houses in Nineveh for thirty shekels. The greater number of the tablets, however, relate to the sale or exchange of slaves. There is a deed of exchange by which a male slave is bartered for a girl; in another case a male slave is sold, together with his mother; and in a third instance a slave and his family,

seven persons in all, are sold for three manehs of silver, the name of the slave, Hoshea, indicating in all probability that the family were among the captives who had been brought from the land of Israel.[1]

Two of these dockets, selected because they are in a better state of preservation than the rest, are here reproduced on the actual scale. The first is dated in the eponymy of Sin-sarra-uzur (moon-god defend the king), and the second in that of Assur-lid-ani (Assur, bear me). Both tablets therefore are later than the year 647 B.C., when our fragments of the eponymic lists come to an end, and may probably be assigned to the closing years of the reign of Assur-bani-pal. On the first tablet[2] the cuneiform inscription on the face is a contract for the sale of a female slave called Arbail Sarat, 'Arbel of the queen,' for one and a half manehs of silver. On the edge is an alphabetic docket:



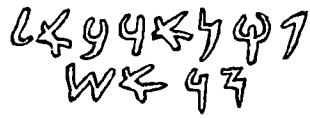
DANAT 'ARBEL SARA

"Sale of Arbel Sara."

[1] The first account of these tablets, with engravings and tentative translations, was given in a memorable paper by Sir H. Rawlinson, in vol. i. of the *Journal of the Royal Asiatic Society*, new series, 1864, pp. 187—246. The best facsimiles, two of which are here repeated, will be found in the *Cuneiform Inscriptions of Western Asia*, vol. iii., plate 46. The alphabet of the tablets is given in column iii. of the Table on p. 250.

[2] See *C. I. W. A.*, vol. iii., plate 46, No. 1; *J. R. A. S.*, vol. i., new series, plate 1, No. 1.

The second tablet[1] is a deed of sale of a house by Paqa-ana-Arbail to Sir-Asha for half a maneh of silver. The Phœnician docket on the edge is in two lines:



PAQAN 'ARB'AL

SIR 'ASHA.

These two tablets, of which the first can hardly be anterior to the second by more than twenty years, exhibit in actual progress the development of the test peculiarities of the Aramean alphabet. On the first tablet the loops of *daleth* and *beth* are open, while the loop of *resh* is closed. On the second all the loops are open, of *resh* as well as of *beth* and *q'oph*. These dockets likewise suffice to prove that the evolution of the Aramean alphabet took place at the same time as the development of the Sidonian style of the Phœnician alphabet out of the Tyrian type. This is shown by the fact that the letters *shin* and *lamed* still preserve the older forms, while the *samekh* is distinctively Sidonian, and the *tau* transitional (see p. 201).

The contract tablets being legal documents, bear definite dates, and thus supply valuable evidence as to the precise period at which the peculiarities of

[1] See *C. I. W. A.*, vol. iii., plate 46, No. 9; *J. R. A. S.*, vol. i., plate 3, No. 14.

the Aramean alphabet originated.* In all the tablets executed in the second half of the 7th century the alphabet is Aramean. In the first half of this century, during the reigns of Sennacherib and Esarhaddon, both styles are found. Thus there are three tablets executed in the years 680, 683, and 687 respectively, in which the alphabet is Aramean, while on the Sennacherib lion weights, and on one of the Esarhaddon tablets, it is Phœnician.

Towards the close of the 7th century the copious stores of the Nineveh Record Office fail us, and during the next two centuries the development of the Aramean alphabet is attested only by a few sporadic monuments.

Among these it has been usual to reckon one of the most interesting and beautiful of early coins. This is a large silver Daric, which presents on the reverse a galley, and on the obverse a Persian king seated in his chariot, with the legend MZDI in Aramean letters, which seems to be the Persian word *mizda*, 'pay' or 'reward.'[1]

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[1] See p. 52 *supra*. The coin seems to have been struck for distribution among the troops led by some Persian king in person on an expedition to the West, in which naval and military forces operated in conjunction. The character of the alphabet indicates the beginning of the 5th century, so that the coin might commemorate the passage of the Bosphorus by Darius on his Scythian expedition, or the invasion of Greece by Xerxes. From the style of execution, however, and more particularly from the absence of an incuse square or circle on the reverse, numismatists are inclined to consider that the coin cannot be much earlier than the 4th century,

Still more noteworthy is a bronze lion weight of Assyrian style, but of provincial execution, which was dug up in 1860, on the site of Abydos in the Troad, by a peasant working in his field.[1] The weight being nearly 57 lbs., it evidently represented a Persian or Euboic talent. From the character of the alphabet it may be assigned to the beginning of the 5th century.

LION WEIGHT FROM ABYDOS.

The inscription reads :—

אספרן לקבל סתריא זי כספא

"Verified in presence of the supervisors of the silver."

Towards the close of the Achæmenian period we

in which case it may have been struck in Egypt at the time of the expedition of Artaxerxes Ochus. See Head, *Coinage of Lydia and Persia*, p. 43, and plate 3, no. 5; Six, in *Numismatic Chronicle*, new series, vol. xvii.; Gesenius, *Monumenta*, plate 36, G; Lenormant, *Alphabet Phénicien*, vol. i., p. 208, plate ix., column 6.

[1] The engraving is taken from de Vogüé, *Mélanges*, p. 181.

come upon another store of epigraphic materials, which carry on the history of the Aramean alphabet during the 4th century. For this period we have to rely chiefly on the legends of the coins which were struck by the Persian satraps and the hereditary dynasts who ruled over the provinces of Asia Minor[1] at the time when, during the reigns of Artaxerxes Ochus and his successors, the Persian empire was torn by a continual series of revolts. Asia Minor was the borderland of three languages and of three alphabets. In the provinces of Cilicia and Cappadocia, where the population was mainly Semitic, the alphabet and language of the coins is Aramean. The legends on the coins of Pharnabazes (c. 410 B.C.) are Greek at Cyzicus, and Aramean at Tarsus. Those of Datames (c. 370 B.C.) are Greek at Sinope, and Aramean in Cilicia. Those of the satraps of Lycia and Cappadocia are either Lycian or Aramean. The coins struck at Tarsus are exclusively Aramean. They usually bear the designation of the ruling satrap, together with the effigy and name of Baal-Tars, the local Semitic deity.

The alphabet of these coins is given in column iv. of the Table on p. 250. It does not differ materially from the alphabet of the Nineveh contract tablets.

[1] The earliest recognition and investigation of the obscure coinage of these princes is due to the labours of the Duc de Luynes, whose researches have been supplemented and completed by Blau, Levy, and Waddington.

The heads of the looped letters are more open, and the outlines of *zayin* and *yod* are simplified.

§ 3. EGYPT.

The Aramean coinage of the Satrapies comes to an end with the conquests of Alexander in 334 B.C.; so that for the next three centuries we are mainly dependent on documents of Egyptian origin. With the exception of an inscription from the Punjab, hereafter to be noticed, and a few Bactrian coins, Egypt supplies the materials for the history of the Aramean alphabet during the important period of transition between the 4th and the 1st centuries B.C.

Two of the Egyptian records are contemporaneous with the coins of the Satrapies. The earliest is the Stele of Sakkarah, which is dated in the 4th year of the reign of Xerxes (482 B.C.) It is a bilingual, written in hieroglyphics and Aramean, but the writing is so indistinct as to diminish the palæographical value.[1] In addition to this stele, there is a document relating to certain libations, which was discovered by M. Mariette in the ruins of the Serapeum at Memphis. It may be assigned to the end of the 5th or the beginning of the 4th century B.C., the alphabet being of the same type as that of the coins of the Satrapies.

[1] A facsimile will be found in the *Oriental Series* of the Palæographical Society, plate 64. Cf. *Zeitschr. f. ägypt. Spr.*, xv., p. 127.

The rest of the Egyptian monuments are of later date, belonging to the 3rd and 2nd centuries. The greater number are MSS. written on papyrus, and hence the Aramean of Egypt is frequently designated as the Aramean of the Papyri. Some, however, are mortuary inscriptions, engraved on stone in imitation of the cursive character used in the Papyri. The external appearance of this alphabet, which is given in columns v. and vi. of the Table on p. 250, has obviously been greatly modified by the nature of the writing material employed; but it becomes evident, on a closer examination, that the peculiarities of this script are superficial rather than essential. If attention be directed, not to the mere external aspect, but to the actual outline of the individual letters, it will be found that the Egyptian monuments supply the true link which connects the alphabet of the Satrapies with the alphabet of the Herodian inscriptions from Jerusalem and the earlier monuments of Palmyra.

The cardinal example of the Aramean of Egypt is the well known 'Carpentras inscription,' so called from a small town near Avignon, where it is preserved in a local museum. This monument is the funeral stele of Ta-bäi, a priestess of Osiris. The probable date is the beginning of the 3rd century B.C.[1] There are two

[1] The best engraving is published in the *Oriental Series* of the Palæographical Society, plate 64. It is also given by Gesenius, together with facsimiles of the more important Papyri, *Monumenta*, plates 28-33. One of the best of Lenormant's plates is devoted to a

similar steles in existence, one in the Vatican, the other formerly in the possession of the poet Samuel Rogers.

The papyri are more numerous. One is at Turin, one is in the Louvre, two are at Rome, two at Cairo, and two, which formerly belonged to the Duc de Blacas and bear his name, are now in the British Museum. Of these MSS. the most recent, which may be assigned to the end of the 2nd or the beginning of the 1st century B.C., are of a secular nature. The Paris papyrus is the wine and cellar account rendered by the steward of some important personage, while the fragment in the Vatican is a stray leaf which has chanced to escape destruction, belonging to the archives of some department of the Egyptian government. The contents of the other papyri are of a religious character, consisting of fragments of prayers and pious legends, which seem, mostly, to have been the production of Jews resident in Egypt, and may belong to the end of the 3rd century or the beginning of the second. The fact that the alphabet of the papyri is employed on the grave-stones of servants of the Egyptian temples shows that it was in general use among the Aramaic-speaking portion of the Egyptian people, and was not confined, as has been asserted, to residents of Jewish nationality. As a specimen of this script, a facsimile may be given of the Turin fragment.

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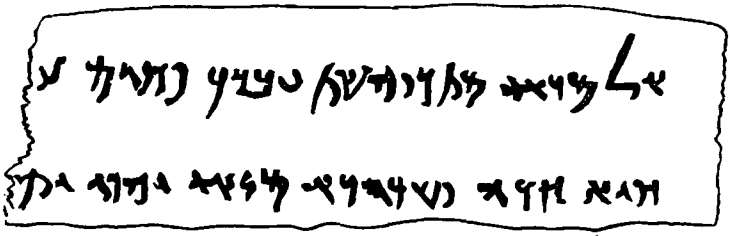
comparative table of the alphabets of these Papyri. *Alphabet Phénicien*, vol. i. plate xi.



THE TURIN PAPYRUS.[1]

אל מראי מתרוהשת עבדך פחים ש ..
חיא חדה ושרירא מראי יהוי י[ק] ...

The value of this series of Egyptian documents lies mainly in the evidence which they afford as to the changes which took place in the Aramean alphabet during the period covered by the duration of the Empire of the Ptolemies. Looking at columns v. and vi. in the Table on p. 250, it will be seen that the tails of certain letters, such as *kaph*, *lamed*, *mem*, *pe*, and *tsade*, which are straight on the coins of the Satrapies, begin to curve towards the left, in the direction of the writing. This tendency is of considerable importance for the subsequent history of the Semitic alphabets; it explains, for instance, how the Hebrew letters צ פ ם ל כ have come to be so wholly unlike the Phœnician forms

[1] M. Clermont-Ganneau (*Rev. Arch.*, August 1878 and Jan. 1879) translates:—

À Monseigneur Mitrawahishta ton serviteur Pakhîm .....
Vivant, joyeux (en santé) et fort Monseigneur qu'il soit .....

M. Lenormant, following Gesenius, makes the ninth letter ד, and translates:—

Deus, domine mi! ex conculcatione servum tuum Peckim e[ripe]
Vita unica et verax dominus meus Jehovah .....

from which they were derived. Some other letters, notably *aleph*, *yod*, *samekh*, and *'ayin*, exhibit the commencement of the changes which resulted in the almost entire transformation of their primitive forms in the alphabets of which the Aramean was the parent. This will be seen by comparing the Phœnician letters in column i. of the Table with the early Hebrew characters in column vii. In the Egyptian Aramean we may also discover the origin of the duplicate forms of various letters which characterize the later Semitic alphabets. In the earlier monumental scripts the letters are separate, but in some of the Egyptian papyri certain letters are united by ligatures, and at the same time a separation is introduced between the words.[1] Hence arose the differences between the initial and final forms of several letters. In the Blacas papyrus, and in the papyrus of the Louvre, a distinction has already established itself between the final and the initial forms of the letters *kaph*, *lamed*, and *nun*.

§ 4. PALMYRA.

The second stage of the Aramean alphabet is succeeded in chronological and morphological sequence by a third type, which lasted from the 1st century B.C. to the 3rd century A.D. While most of the monuments of the second type have been found in Egypt, those of

[1] In the facsimile of the Turin fragment it will be noticed that the words are separated, and that the ligature *aleph-yod* occurs twice.

the third type have been obtained mainly from Palmyra. This may be attributed to three causes. The geographical isolation of Palmyra tended to conserve longer than elsewhere the early type of the Syrian alphabet; while during the brief splendour of Zenobia's rule many great public buildings, with inscriptions, were erected; and then the subsequent desolation of the city and the dryness of the climate saved these records from the destruction which a populous site or a humid atmosphere are certain ultimately to entail. There is no reason to suppose that the alphabet of these inscriptions was confined to Palmyra; but the established designation of the 'Palmyrene Alphabet' need not be discarded, if it be clearly understood that it is used to denote the alphabet of Central Syria at the commencement of the Christian era. A comparison of columns vii. and viii. in the Table on p. 250 will show that the early Hebrew character used at Jerusalem during the Herodian period did not differ appreciably from the contemporary alphabet of Palmyra.

The Palmyrene inscriptions are very numerous, more than a hundred still remain at Tadmor,[1] and there are several in the Museums of Oxford, Paris, Rome and London. Four inscriptions in this character have been found in Algeria, where a body of

[1] These have been carefully copied, and published either in the great work of Messrs. Dawkins and Wood, or more recently by M. Waddington and the Duc de Luynes.

Palmyrene archers seems to have been stationed. Another of great interest[1] has recently been discovered in the Roman cemetery at South Shields, close to the termination of the Roman Wall. It is a bilingual epitaph, in Latin and Palmyrene, to the memory of Regina, of the British tribe of the Catuvellauni, "the freedwoman and wife of Barates, a Palmyrene." Barates probably belonged to the Syrian cohort of Hamath, which was stationed at Carvoran (Magnæ) on the Wall. The inscription is assigned to the beginning of the 3rd century A.D.

The Palmyrene inscriptions extend over some three centuries. The earliest dated monuments belong to the years 9 B.C., 48 A.D., and 139 A.D. The greater number, however, were written in the reigns of Odenatus and Zenobia, 266 to 273 A.D., just before the fall of Palmyra. Besides the usual monumental or uncial alphabet, there is a cursive form which is used in inscriptions of a less public character. One of these cursive inscriptions, now at Rome, bears a date corresponding to 235 A.D. This cursive alphabet, together with the earlier and later forms of the monumental character, will be found in columns viii., ix., and x. of the Table on p. 250.

It will be seen that the Palmyrene character is the lineal descendant of the Aramean of Egypt; the Herodian or early Hebrew alphabet given in column

[1] See the facsimile, and the account by Prof. W. Wright, in the *Trans. Soc. Biblical Archæology*, vol. vi., p. 436.

vii. forming a natural transition between the two. The calligraphic flourishes and ornaments, and the rounded loops and curves of the later Palmyrene, show that it was essentially a literary rather than a monumental script. It is evident that the characters used in MSS. of an ornate description were imitated on stone, a very unsuitable material for such a purpose. The broken lines of *vau*, *qoph*, and *resh*, and the needless sweeps in *aleph*, *cheth*, and *kaph*, are features unsuitable for an epigraphic alphabet, but are easily explained as the vagaries of fashion in a character chiefly employed for costly codices.

These calligraphic flourishes disappear in the cursive Palmyrene, but the tendencies to essential changes in the forms of the letters are intensified, as is always the case in cursive, as compared with monumental scripts. But for this very reason the cursive Palmyrene possesses a greater historical importance, as it explains the origin of many peculiarities in the Syriac, the Arabic, the Pehlevi, and other cognate alphabets.

Thus the tendency to unite letters by ligatures, and hence to originate distinct medial and final forms, which began in the Aramean of Egypt, received further development in the cursive Palmyrene. The practice of curving the tails of certain letters towards the left received also a further extension. In the case of *tau*, for instance, the cursive Palmyrene form explains how in the Arabic ت the whole of the horizontal bar of

the primitive letter ✝ has disappeared, so that nothing is left but the curved tail of the vertical stroke. The same causes have entirely transformed *lamed*. The Palmyrene explains the way in which the cross bar of the primitive letter 𐤋 has been transferred in its Syriac descendant ܠ to the opposite side of the vertical stroke. Quite as curious is the transformation of *'ayin*. Originally a closed circle, in the early Aramean it opens out at the top, in the middle Aramean it becomes angular, and finally developes a tail, which also gradually developes, till in the Syriac ܥ the upper straight stroke is the sole survival of the primitive circle; while in the Arabic ع the tail of the Palmyrene letter is curved to the right and becomes the most conspicuous feature in the character. The tails of *mem* and *samekh* are turned to the left, so as to give rise to the looped forms ם and ס which these letters assume in square Hebrew. The Arabic and Syriac forms of *gimel*, *cheth*, *qoph*, and *nun* may also easily be traced to peculiarities which first make their appearance in the Palmyrene.

Hitherto we have been able to consider the Aramean as the undivided alphabet which prevailed for several centuries throughout Western Asia. With the overthrow of the Seleucidan empire, followed by the desolation of Palmyra, it parted into five great national types, to which religious causes gave a singular vitality. We have now to follow the history of these five great branches. They are, (1) the

Hebrew or Jewish, (2) the Syriac or Christian, (3) the Mongolian or Buddhist, (4) the Arabic or Mohamedan, (5) the Pehlevi or Zoroastrian.

§ 5. HEBREW.

We have already seen that the modern Hebrew alphabet differs fundamentally from the character in which the Jewish Scriptures were originally written. After the return from exile, the ancient alphabet of Israel, although retained upon the Maccabean coins, and probably also for copies of the Scriptures, was, for other purposes, gradually abandoned in favour of the more cursive Aramean alphabet, which was the ordinary mercantile script of the contiguous regions, Mesopotamia, Cilicia, Syria, Egypt, and other provinces of the Persian empire. From the Babylonian Talmud we learn that in the 5th century A.D. the Jews preserved a tradition of this change of alphabet, which was attributed to Ezra. The statement in the Talmud can however only be regarded as an approximation to the actual facts. No doubt many of the returning exiles continued to employ the alphabet with which they had become familiar in Babylon, while the scribes, and those who had been left in the land, retained for a time the ancient alphabet. Thus both scripts were probably employed concurrently for a considerable period. The Egyptian papyri sufficiently prove that from the beginning of the 2nd century

B.C., if not earlier, the Aramean alphabet was that which was ordinarily used by Jews resident in Egypt; and there is no reason to suppose that at this period the alphabet of Palestine differed in any respect from the Aramean alphabet used in the neighbouring lands. It must therefore be assumed that the Aramean of the papyri represents most closely the character into which the Hebrew Scriptures were transliterated when the ancient alphabet of Israel began to fall into disuse.

The development of the modern square Hebrew as a distinct script seems to have commenced in the 1st century B.C. On the dissolution of the Seleucidan empire the Western Aramean broke up into national scripts. It was at this time, under the rule of the Idumean princes, that the Hebrew alphabet, as the Aramean of southern Syria may now be called, first begins to be distinguishable from the alphabet of Central Syria, which goes by the name of the Palmyrene. How slight were the differences which at first distinguished these two alphabets may be seen by comparing the contemporary alphabets of Jerusalem and Palmyra, which are placed side by side in columns iv. and v. of the Table on the following page.

A differentiation having once been established, the divergence went on rapidly increasing, until, in the course of the next few centuries, the northern Aramean developed at Edessa into what is known as the Syriac alphabet, while out of the southern Aramean the Jews

EVOLUTION OF THE HEBREW ALPHABET.

	PHŒNICIAN.	ARAMEAN.			HEBREW.								
	Israel.	Satrapies.	Egypt.	Palmyra.	Jerusalem.		Babylon.	Edessa.	Square Modern.	Rabbinic.		Cursive.	
	Sec. viii to v.	Sec. iv. B.C.	Sec. iii. B.C.	Sec. i. B.C.	Sec. i. B.C.	Sec. iv. A.D.	Sec. iv. & vii. A.D.	Sec. x. A.D.		Northern.	Southern.	Modern.	
Aleph	𐤀	𐡀	𐡀	𐡀	𐡀	𐡀	𐡀	𐡀	א	א	א	א	1
Beth	𐤁	𐡁	𐡁	𐡁	𐡁	𐡁	𐡁	𐡁	ב	ב	ב	ב	2
Gimel	𐤂	𐡂	𐡂	𐡂	𐡂		𐡂	𐡂	ג	ג	ג	ג	3
Daleth	𐤃	𐡃	𐡃	𐡃	𐡃	𐡃	𐡃	𐡃	ד	ד	ד	ד	4
He	𐤄	𐡄	𐡄	𐡄	𐡄	𐡄	𐡄	𐡄	ה	ה	ה	ה	5
Vau	𐤅	𐡅	𐡅	𐡅	𐡅	𐡅	𐡅	𐡅	ו	ו	ו	ו	6
Zayin	𐤆	𐡆	𐡆	𐡆	𐡆	𐡆	𐡆	𐡆	ז	ז	ז	ז	7
Cheth	𐤇	𐡇	𐡇	𐡇	𐡇	𐡇	𐡇	𐡇	ח	ח	ח	ח	8
Teth	𐤈		𐡈	𐡈	𐡈	𐡈	𐡈	𐡈	ט	ט	ט	ט	9
Yod	𐤉	𐡉	𐡉	𐡉	𐡉	𐡉	𐡉	𐡉	י	י	י	י	10
Kaph	𐤊	𐡊	𐡊	𐡊	𐡊	𐡊	𐡊	𐡊	כ ך	כ	כ	כ	11
Lamed	𐤋	𐡋	𐡋	𐡋	𐡋	𐡋	𐡋	𐡋	ל	ל	ל	ל	12
Mem	𐤌	𐡌	𐡌	𐡌	𐡌	𐡌	𐡌	𐡌	מ ם	מ	מ	מ	13
Nun	𐤍	𐡍	𐡍	𐡍	𐡍	𐡍	𐡍	𐡍	נ ן	נ	נ	נ	14
Samekh	𐤎	𐡎	𐡎	𐡎	𐡎	𐡎	𐡎	𐡎	ס	ס	ס	ס	15
'Ayin	𐤏	𐡏	𐡏	𐡏	𐡏	𐡏	𐡏	𐡏	ע	ע	ע	ע	16
Pe	𐤐	𐡐	𐡐	𐡐	𐡐	𐡐	𐡐	𐡐	פ ף	פ	פ	פ	17
Tsade	𐤑		𐡑	𐡑	𐡑		𐡑	𐡑	צ ץ	צ	צ	צ	18
Q'oph	𐤒	𐡒	𐡒	𐡒	𐡒	𐡒	𐡒	𐡒	ק	ק	ק	ק	19
Resh	𐤓	𐡓	𐡓	𐡓	𐡓	𐡓	𐡓	𐡓	ר	ר	ר	ר	20
Shin	𐤔		𐡔	𐡔	𐡔	𐡔	𐡔	𐡔	ש	ש	ש	ש	21
Tau	𐤕	𐡕	𐡕	𐡕	𐡕	𐡕	𐡕	𐡕	ת	ת	ת	ת	22
	I.	II.	III.	IV	V.	VI.	VII.	VIII.	IX.	X.	XI	XII	

of Jerusalem and Babylon evolved the wholly dissimilar alphabet which is employed in our Hebrew Bibles.[1]

We possess an unusually complete series of dated monuments, by means of which the evolution of the square Hebrew character can be traced.

There are four inscriptions from Jerusalem which are believed to be anterior to the destruction of the city by Titus. The first of these, though only a fragment containing seven letters, is of singular interest. We learn from Josephus that when the Temple was rebuilt by Herod, notices, which were written both in Greek and Latin, were placed in the outer court, enjoining reverent behaviour, and forbidding Gentiles, under pain of death, to pass the limits prescribed to them. One of these steles, containing the Greek version of the ordinance, has recently been discovered

[1] The Table exhibits the nature of these changes. The introduction of ligatures increased the number of final forms, which are found in five letters, *kaph*, *mem*, *nun*, *pe*, and *tsade*. Owing to the same cause the horizontal bars at the bottom of צ פ ס נ מ כ ב have arisen out of the nearly vertical tails of their primitive prototypes; while the upper bars of ר ס נ ם כ ר ב are due to the opening of the closed loops and zigzags of the earlier forms. This destruction of the primitive distinctive features has caused the inconvenient similarity of so many of the letters. The reader will find it instructive to try and identify the component parts of the various letters. He will see for instance that in ג the cross bar has worked down from the top to the bottom of the letter; while in ה the horizontal line corresponds to the upper bar in our own E, whose second bar has gradually become vertical and detached, while the third bar has disappeared.

by M. Clermont-Ganneau. While exploring the substructures of the Temple, M. de Saulcy[1] was so fortunate as to come upon an ancient drain, in which he found a portion of a similar stele inscribed with Hebrew letters of extremely primitive form, deeply and regularly cut. That this fragment belonged to a Hebrew version of the notice may be conjectured with some certainty from the remaining words, which may be rendered "Here let every man . . . . . keep silence." We obtain therefore a monument which may be confidently assigned to the end of the 1st century B.C.

Of the same date, or nearly so, and of a length sufficient to supply the forms of all but three of the Hebrew letters, is the inscription on the well known sepulchre in the valley of Jehosaphat which goes by the name of the Tomb of St. James, but which is really the burial place of the priestly family of the Beni-Hezir.

We have also an inscription on a sarcophagus which was found in a cave below the so-called Tomb of the Kings at Jerusalem. As this cave was used as a charnel house during the siege by Titus, the inscription cannot be later than the year 70 A.D. On another tomb, situated to the north-east of Jerusalem, a portion of an epitaph is still legible, and may be assigned, on palæographical grounds, to about the same period.

[1] De Saulcy, *Voyage en Terre Sainte*, vol. ii. pp. 12, 13.

The alphabet obtained from these four inscriptions is given in column v. of the Table. It may be regarded with confidence as the Hebrew alphabet of the Herodian period. As an alphabet it is decidedly superior to our modern square Hebrew, of which it is the earliest form; and it is not without interest of another kind, as it must have been the very alphabet which was ordinarily used by our Lord and his Apostles.

These four inscriptions, which have made it possible to determine the primitive form of the Hebrew alphabet, are all from the neighbourhood of Jerusalem. But it is worthy of note that the inscriptions of the centuries subsequent to the dispersion, by means of which the history of the development of the Hebrew alphabet is carried on, have been obtained from the remotest regions of the civilized world. From Italy and Gaul, from Spain and the Crimea, from Babylon and Aden, from Tiflis and Derbend, we obtain inscriptions, many of them with definite dates, showing how wide was the dispersion of the Jewish race, and also how constant was the intercommunication between the scattered exiles, who retained, wherever their lot might be cast, their ancient language and the peculiar alphabet of their sacred books.

The epitaphs, about 700 in number, from the cemeteries of the Karaite Jews in the Crimea, which have been brought forward by Messrs. Firkowitz and Chwolson, are probably genuine, but the very early

dates[1] claimed for some of them have been the cause of so much controversy that at present it may hardly be safe to include them among the materials from which the history of the Hebrew alphabet must be compiled.

From the two Jewish catacombs at Rome there are several bilingual inscriptions, which are assigned to the 2nd and 3rd centuries. Of the same date are the inscriptions published by Renan from the synagogues of Kefr Beraim in Galilee. To the 4th century must be ascribed an inscription from Byblos, an epitaph from the cemetery at Arles, and an inscription written by two Jewish pilgrims from Sicily, on a column in the vaults under the Mosque El Aksa at Jerusalem. The alphabet of these inscriptions is given in column vi. of the Table.

Of greater palæographical importance are the cabalistic incantations found on six earthenware bowls, obtained from an ancient Jewish cemetery at Babylon. These inscriptions, which are written with ink round the interior of the bowls, are of considerable length, and their contents are extremely curious. They consist of amulets and charms against sorcerers, witchcraft, and disease; exorcisms against evil spirits, Satan, Nerig,

[1] They bear dates ranging from the 1st to the 10th century A.D. Three purport to belong to the 1st century. On palæographic grounds, if the hypothesis of forgery be excluded, there is no reason to dispute the greater number of these attributions. The alphabets are given by Lenormant, plate 15, and by Madden, *Coins of the Jews*.

Abitur, and the ruler of the nocturnal monsters; with invocations of the nine guardian angels, Barakiel Ramiel, Raamiel, Nahabiel, Sharmiel, Nadkiel, Damiel, Hachael, and Ashriel, and also of the unnamed angel to whom there are eleven names. It has been conjectured that the writing was intended to be dissolved in water, and drunk as a prophylactic against witchcraft or disease. These curious amulets bear no dates, but from the nature of the Mishnaic dialect employed, from the character of the Gnostic ideas, and from the fact that the Estrangelo alphabet is used on one of the bowls, it has been concluded that four of the cups belong to the 4th and 5th centuries, while another is as late as the 7th. The two alphabets—the earlier and the later—used on these bowls, are given, side by side, in column VII. of the Table.[1]

To the 7th century belong the celebrated trilingual inscription from Tortosa in Spain, a dated inscription from Narbonne, and another from Vienne in France. For the period between the 4th and 10th centuries the inscriptions from the Jewish cemetery at Venosa, in Southern Italy, are of great importance. From Aden, where the Jews seem to have been numerous, we have two dated inscriptions which were written in the years 717 and 916 A.D.

From this time onwards we possess Hebrew manuscripts of undoubted authenticity. Of these the most

[1] The bowls are now in the British Museum. They are described and engraved by Layard, *Nineveh and Babylon*, pp. 509—526.

important is the "Odessa Codex," now at St. Petersburg, which was originally obtained from a synagogue in the Crimea.[1] This beautiful MS. is a small folio of 225 pages, containing Isaiah, Jeremiah, and the Minor Prophets. From a colophon at the end we learn that it was completed in the year 916 A.D. The readings and punctuation differ from those found in our printed Bibles, and are believed to represent the text adopted by the Babylonian Massoretic school.[2]

The Odessa Codex proves that in the 10th century the Hebrew letters had practically assumed their modern forms, though not their modern aspect. The squareness and uniformity, as well as the useless ornamental apices, which are so characteristic of Hebrew typography,[3] are due to the schools of calligraphy which arose at the beginning of the 12th

[1] In the Firkowitz collection, now at St. Petersburg, are a number of rolls purporting to have been obtained from the synagogues of the Karaite Jews in the Crimea, which bear dates from the 5th century downwards. These MSS., however, are subject to even greater suspicion than the lapidary records to which reference has already been made. The Ben Asher Codex, recently discovered at Aleppo, and a MS. belonging to the Karaite Jews at Cairo, are older than the Odessa Codex.

[2] The alphabet of this MS. is given in column VIII. of the Table on p. 270. A facsimile of a few verses, copied from the photo-lithographic reproduction, published by Dr. Strack, will be found in the *Trans. Soc. Bibl. Archæology*, vol. v. p. 129.

[3] The change is marked by two MSS. in the British Museum, respectively written in 1091 and 1189 A.D. In the former there is hardly a trace of the apices, while in the latter they are conspicuous.

century. There were two leading styles of penmanship, the Spanish, which was more massive and monumental, and the German, which was somewhat elongated and pointed. The Spanish style was imitated in the types used to print the Antwerp polyglot and the Bible of Henry Stephens, while the German style, which first appears in the Münster Bible, has survived in the types now generally employed in European printing offices. These types have little to recommend them. They are trying to the eyes of students and compositors; several letters, such as ב and כ, ד and ר, or ם and ס, being so much alike as to be difficult to distinguish. Hence the primary requisite in a good alphabet, legibility and distinctness, is not attained. Neither great antiquity nor the deliberate choice of scholars can be pleaded in favour of these particular forms, the original adoption of which seems to have been almost a matter of accident. They were copied from the ornate MSS. which happened to be most in vogue at the time when the first Hebrew books were printed, very much as the "black letter" of our early printed books was an imitation of the vicious style of contemporary MSS. Except in Germany, the mediæval black letter has, with manifest advantage, been replaced by the distinct and beautiful Roman minuscule of an earlier period. In Greek printed books there can be no question as to the immense improvement which has been effected by exchanging the illegible contracted minuscule of the 15th century for

the older style which is now employed. In respect of Hebrew, the gain would be as great if type-founders would have the courage to adopt the older forms, which are better because more simple and more legible. There is no reason, except mere custom, why Hebrew students should continue to be troubled with the fantastic calligraphy of the 14th century, when it would be so easy to revert to the better alphabet of earlier times.[1]

Besides the square Hebrew character, which is used for printed books and for the sacred rolls of the synagogues, there are other less elaborate styles. Of what is called Rabbinical Hebrew the chief types are the Northern, which embraces the German and the Polish styles, and the Southern, which includes the Italian or Raschi and the Spanish-Levantine. The German Rabbinical is descended from the square Hebrew of the 11th century. The Spanish-Levantine is of considerable antiquity. It does not differ greatly from the 7th century Tortosa inscription, and this again resembles the alphabet of the Babylonian cups.

Of the so-called cursive scripts, the two varieties used by the Jews in Algiers and in Morocco are manifestly derived from the Spanish-Levantine. The

[1] If the Archaic alphabet of the Herodian period be thought too unfamiliar, the style shown in the inscriptions of Babylon, Aden, and Tortosa, or in some good early manuscript, such as the Odessa Codex, might be taken as a model. Of the lapidary types, the Aden inscription of 717 A.D. leaves little to desire.

cursive script which is now used by the German Jews comes from the "Female German," which is of the same type as the Raschi. It is easy to write, though somewhat difficult to read.[1]

A description of the elaborate system of points, by means of which the vowels are indicated in modern Hebrew, would be more suitable to a Hebrew Grammar than to a History of the Alphabet. A brief account of the origin of the punctuation may however be admissible as an illustration of the fundamental imperfections of Semitic as compared with non-Semitic alphabets.

The peculiar structure of the Semitic languages made it possible, as has already been explained (p. 183), to dispense altogether with a notation for the vowels. None of the earlier Semitic alphabets possessed any such notation. In Aryan and Turanian languages the vowels are radical and essential, and hence we find that the adoption of a Semitic alphabet by a non-Semitic people has been invariably accompanied by the development of actual letters to express the vowel sounds. This is the case with the Greek, the Parsi, the Armenian, the Mongol, and the Indian alphabets. In each of these instances the symbols for the breaths

[1] An attempt to show compendiously the broad features which distinguish Rabbinical and cursive Hebrew has been made in the last three columns of the Table on p. 270; for further details, see columns 45 to 50 of Euting's admirable *Schrifttafel*. Cf. Lenormant, *Alphabet Phénicien*, vol. i., plate xviii.

and the weaker consonants were transformed into vowel signs. The six Greek vowels, *alpha*, *epsilon*, *eta*, *iota*, *omicron*, and *upsilon*, were developed out of *aleph*, *he*, *cheth*, *yod*, *'ayin*, and *vau*. In Armenian, Georgian, and Mongolian, a similar result has been attained in very nearly the same way. In Parsi no less than seventeen distinct vowel signs were evolved by differentiation out of *aleph*, *vau*, and *yod*, while in India the fourteen Sanskrit vowel signs, and a still larger number in the Dravidian scripts, have arisen out of *aleph*, *vau*, and *'ayin*, and the liquids *lamed* and *resh*.

In no Semitic language has any analogous operation taken place. The nearest approach to it is found in the very curious script invented by the Mendaites, a semi-Christian people who now occupy the ancient Chaldean territory at the head of the Persian Gulf. Atrophied forms of *aleph*, *vau*, and *yod* are joined by ligatures to the consonants, so as to constitute a sort of syllabary. A somewhat similar notation, of obscure origin, is employed also in Ethiopic.

The first step towards the evolution of vowel signs may be observed even in the earliest Phœnician texts; the weak consonants being employed as *matres lectionis* to denote the cognate vowel sounds when emphatic.

In Syriac, Arabic, and Hebrew a system wholly divergent from that of the Aryan languages was ultimately adopted, the vowel sounds being expressed by means of diacritical points. This plan is of com-

paratively late introduction, and is so troublesome that its use has always been much restricted. Arabic scribes usually omit the vowel points, except in difficult poetry, in philological works, and in copies of the Koran, and the rolls read in the Jewish synagogues are as a rule unpointed.

The exact date at which vowel points were first introduced is not known with certainty. The Greek transcription of Hebrew names by the Septuagint translators and by Josephus proves that in the copies of the Scriptures to which they had access there was no method of denoting the vowels. It is also admitted that in the time of Jerome the vocalization of Hebrew was known only by oral teaching.

Vowel points make their earliest appearance in Syriac. An imperfect notation was employed in the time of St. Ephraem (c. 370 A.D.), and is used, exceptionally, in a manuscript in the British Museum which was written in the year 411 A.D.[1] This was replaced by a more elaborate system in the course of the 6th century. The Hebrew vowel points were doubtless suggested by the Syriac use. Two different systems of punctuation were invented nearly simultaneously; one, which has now fallen into disuse, arose at Babylon,[2] while the other, which is that now employed, originated in the Palestinian schools.

[1] Add. MSS., no. 12,150. Facsimile in Land, *Anecdota Syriaca*, vol. i., plate iv.

[2] The Babylonian system is known to us from the Odessa Codex.

In neither case does this seem to have been effected before the close of the Talmud in the 6th century. The Talmud, it is true, refers to certain signs by which the pronunciation of difficult words could be indicated, but it is evident that these signs were exceptional, and that the vowel points as we have them were then unknown. Soon after the close of the Talmud, however, the preservation of the traditional pronunciation was systematically undertaken, and the work is believed to have been completed before the end of the 7th century.

This great enterprise was due to a body of trained scholars, who were called the Massorëtes, or "possessors of the tradition." By means of an elaborate system of vowel points and musical accents, the precise traditional vocalization and intonation of every word of the sacred volume was transmitted to posterity. Hence the Massoretic points of our Hebrew Bibles embody only the pronunciation, which, till the seventh century, had been orally handed down in the synagogues of Tiberias. It can easily be shown, however, that this traditional pronunciation differs considerably from that of Alexandria at the time when the Septuagint translation was made, and it is doubtless still more remote from the pronunciation at the time

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The vowel points are somewhat different in form from our own, and are placed above instead of below the letters. The tonal accents differ also in form and disposition. See Ginsburg, in *Trans. Soc. Bibl. Arch.*, vol. v., p. 131.

when Hebrew was a living language. This, it is to be feared, is now lost beyond recovery.

§ 6. SYRIAC.

Attention has been already drawn to the fact that the later developments of the Aramean alphabet were determined mainly by religious causes. From the Aramean of the Seleucidan epoch sprang four great literary alphabets, which conserve the sacred books of the four great religions of Western Asia. The variety of the Aramean alphabet in which the Koran chanced to be composed goes by the name of Arabic; the Aramean of the Jewish dispersion is called Hebrew; Parsi is the Aramean alphabet of the Zoroastrians; while Syriac is the name used to designate the Aramean of the Christian peoples of the East. But since the people who were called Syrians by the Greeks knew themselves by the name of Arameans, we may expect to find that the Syriac language and the Syriac script are the lineal representatives of the language and script of ancient Aram.

From the 6th century B.C., as we have already seen, (p. 246), the Aramaic speech began to extend itself beyond its original limits, and owing to political and commercial causes gradually became the *lingua franca* of the Seleucidan empire, supplanting one by one the contiguous Semitic languages—Assyrian, Babylonian, Hebrew, and Phœnician. The Aramean alphabet

attained an even wider extension than the Aramaic speech, and at length extirpated all the independent North Semitic scripts.

In the early Christian centuries the Mesopotamian city of Edessa rose to great importance, becoming the head-quarters of Aramean culture, as Antioch was of Grecian learning. From the second to the seventh century, which was the flourishing period of Syriac literature, Edessa was the seat of a great theologic school. Here, soon after the close of the second century, was made the Syriac translation of the Scriptures which goes by the name of the Peshito version, and this helped to give a wide diffusion among all Aramean peoples to the local dialect and alphabet of Edessa.

The conquests of the Arabs, and the consequent spread of the faith of Islam, brought the Arabic speech and the Meccan type of the Aramean alphabet into competition with the language of Aram and the alphabet of Edessa, which had prevailed so widely for many centuries. In the 8th century Syriac rapidly declined, and soon nearly disappeared as a living language. It now survives mainly as the liturgical language of the Jacobite Christians of Aleppo and of the Maronites of the Lebanon, while as a spoken tongue it is represented only by a few Neo-Syrian dialects which linger on the shores of Lake Urumiah in North-Western Persia, and in the mountains of Kurdistan.

The Syriac alphabet has shared the fortunes of the Syriac language. Like its near congener the Palmyrene, it is descended from the Aramean alphabet of the second epoch. Several of the peculiarities which distinguish the Syriac alphabet from the Palmyrene are exhibited on certain coins struck at Edessa during the 1st century A.D., and also in a bilingual inscription on a tomb at Jerusalem, which must be earlier than the siege by Titus, and which seems to relate to some person connected with Helena, Queen of Adiabene. Hence we learn that the development of the Syriac alphabet as a distinct script commenced as early as the 1st century; and also that the Syriac was not, as has been supposed, derived from the Palmyrene, but was an independent development from a common source.

The form of the Syriac alphabet which prevailed during the flourishing period of Syrian culture is called the ESTRANGELO. Of this name the usual explanation, first propounded by Michaelis, and adopted by Adler, Land, and Lenormant, derives it from two Arabic words which signify 'the writing of the Gospels.' In support of this etymology it is alleged that the older uncial characters were retained for copies of the Scriptures, after they had been replaced for ordinary purposes by more cursive scripts. Nöldeke, however, the latest and best authority, prefers, and apparently with good reason, an older derivation, first suggested by Assemani, from the Greek στρογγύλη, 'rounded,' a term which would

appropriately distinguish the bold uncial forms of the Estrangelo letters from the later cursive script which the Syrians call SERTA, or 'linear.' This is the correct name for the modern Western minuscule which often goes by the name of PESHITO, a Syriac word meaning 'simple,' 'usual,' 'common,' applied to distinguish the ordinary script from the more archaic and elaborate writing employed for liturgical purposes. The name Peshito, however, if used to denote the modern Syriac minuscule, is open to serious objection, as the same word has also established itself as the designation of the ancient Syriac version of the Scriptures. This was made early in the 3rd century A.D., and was therefore, beyond a doubt, written in the Estrangelo character, whereas the variety of the Syriac alphabet which also goes by the name of Peshito dates only from the 9th century. It is true that the Peshito, that is the Vulgate, or common Syriac version, is now printed in the Peshito, the vulgar or common Syriac alphabet; but, although the name may thus be justified, it is desirable to discontinue an ambiguous and confusing nomenclature, especially as it is so easy to substitute for it a convenient and well established name. The Serta, or 'linear' script, which is the correct designation of modern Syriac, was probably so called, as Hoffmann has suggested, because of the characteristic horizontal line or ligature which unites the lower portions of the letters, and thus distinguishes it from the Estrangelo, or 'rounded' character.

The most ancient dated Syriac MS. that has come down to us was written in the year 411 A.D.,[1] and exhibits the Estrangelo character in its full perfection. Down to the end of this century the Estrangelo continued to be the sole Syriac script. At the beginning of the 6th century it began to develope the more cursive forms which gradually replaced it; but till the 8th century, when it fell altogether into disuse, the Estrangelo continued to be employed for uncial manuscripts and ornate codices.

The Estrangelo differs from the Palmyrene in being a literary rather than a lapidary script. Hence, as in all cursive alphabets, the tendency is to increase the breadth and to diminish the height of the letters, and more especially so to modify their forms as to make it easy to unite them by ligatures. In the Aramean of Egypt, where ligatures first appear, they are used only for three or four letters; in the Palmyrene the number is increased to twelve characters, whose forms chanced to be such as make it easy to unite them with either the preceding or the following letter. But when we come to the Estrangelo we find that ligatures are employed in the case of every letter of the alphabet, a

[1] This beautiful Codex is among the treasures of the British Museum (Add. MSS. no. 12,150). It contains the Clementine Recognitions and two treatises by Eusebius. A facsimile has been published by the Palæographical Society, *Oriental Series*, vol. i, plate 11; Wright, *Catalogue of Syriac MSS.*, plate 1; also by Land, *Anecdota Syriaca*, vol. i., plates 2 and 4, and p. 65. See Cureton, *Festal Letters of Athanasius*, pp. xv. to xxvi.

THE SYRIAC ALPHABETS.

Modern Names.	Palmyrene. Sec. iii. A.D.	Palestinian. Sec. vii.	Estrangelo. Sec. v.	Jacobite. (Serta.) Sec. xii.	Jacobite. (Serta.) Modern	Nestorian. Modern.	Uigur Sec. xiii.	Mendaite. Modern	
Ôlaf									1
Bêth									2
Gômal									3
Dôlath									4
Hê									5
Vau									6
Zên									7
Ḥêth									8
Ṭêth									9
Yûdh									10
Kôf									11
Lômadh									12
Mîm									13
Nûn									14
Semkath									15
ʿÊ									16
Pê									17
Ṣôdhê									18
Qôf									19
Rîsh									20
Shîn									21
Tau									22
	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	

fact which sufficiently accounts for the great apparent changes in the alphabetic forms. That the universal use of ligatures must necessarily modify the outlines of the letters is easily seen. The case of the Roman minuscules, and the cursive forms derived from them, explains the mode in which such influences operate. It is easy to see, for instance, that the forms of the letters b f g h p r have been transmuted into *b f g h p r*, because the script formation offers greater facilities for obtaining speed by joining letters. Now, if the reader will compare the Palmyrene and the Syriac forms given in the Table on the opposite page, he will see that the changes in the letters which have undergone the greatest amount of alteration, such as *olaf*, *he*, *heth*, *teth*, *shin*, and *tau*, can thus be readily explained. To the same cause is due the startling difference which is sometimes found between the initial and final forms of the same letter, as in the following cases:—

	l	*'a*	*n*	*k*
Initials:	ܠ	ܥ	ܢ	ܟ
Finals:	ܠ	ܥ	ܢ	ܟ

Up to the close of the 5th century there is only one Syriac script, the Estrangelo. The style in fashion at Edessa prevailed over the whole Syrian region, both in the Roman and the Persian provinces. This unity of type was brought to an end by the great heresies, and the consequent schisms, of the 5th and following centuries. The replacement of the Estrangelo by a

variety of cursive scripts was influenced in a most curious manner by theological disputes which turned on the most subtle metaphysical distinctions.

Some of the secondary Syriac alphabets—Nestorian, Jacobite, Maronite—derive their very names from Syrian heresiarchs. The History of the Alphabet at this period is therefore inextricably involved with the history of minute theological distinctions, and of the great councils which were summoned to pronounce upon them.

The earliest of these schisms, that which takes its name from Nestorius, had a greater influence on the development and diffusion of the alphabet than any single event that can be named, save the rise of Islam, and actually resulted in transporting a form of the 5th century alphabet of Edessa as far as the southern extremity of India, and the remote shores of China.

Nestorius, a Syrian who was Bishop of Constantinople, doubted whether the Virgin Mary should be styled Θεοτόκος, the 'mother of God.' The Council of Ephesus, usually called the Third General Council, was summoned by Theodosius the Younger, and met in 431 to decide the question. By the violence of Cyril of Alexandria, who presided at the council, Nestorius was condemned unheard, deposed, and banished. Our involuntary sympathy with the victim makes it easy to understand how warmly the Oriental provinces espoused his cause. Barsumus, a doctor of Edessa, who was a zealous partisan of Nestorius,

having been ejected from his chair, took refuge in Persia, and in 435 became Bishop of Nisibis, where he founded a school of theology in rivalry of that of Edessa. The reigning Sassanian monarch, Firoz, who espoused the cause of the Nestorians, made over to them the patriarchal See of Ctesiphon (Seleucia), and expelled their opponents from Persia, just as the Nestorians themselves had been driven from those parts of Syria which were subject to Constantinople. From the school of Nisibis proceeded those bands of adventurous missionaries who during the 6th and the succeeding centuries spread the Nestorian tenets over Egypt, Arabia, India, Tartary and China.

The more vehement opponents of Nestorius naturally transgressed, in an opposite direction, the strict line of orthodoxy. This reaction from Nestorianism took shape in the heresy of the Monophysites, who were led by Eutychus. The Council of Chalcedon, called the Fourth General Council, which was summoned by Marcian in 451, condemned the Eutychian doctrines. As the Eastern Syrians were mainly Nestorians, so the Syrians of the West sided for the most part with the Eutychians; but those Syrian Christians who, though not Greeks, followed the doctrines of the Greek Church as declared at the Council of Chalcedon, were called by their opponents, by way of reproach, MELCHITES, 'royalists' or 'imperialists,' because they submitted to the edict of Marcian in favour of the decrees of the Council of Chalcedon.

The JACOBITES were the followers of Jacob Baradæus, a monk who revived in the next century the languishing Monophysite heresy, and died Bishop of Edessa in 578. By his untiring energy he converted to the Eutychian creed the Syrian, Armenian, Coptic, and Abyssinian Churches; so that to this day the Patriarch of Antioch is a Jacobite, as well as the Patriarch of Alexandria, whose jurisdiction is still acknowledged by the remote Primate of Abyssinia.

The Monothelites, a sect who adopted in a modified form the views of the Monophysites, were condemned by the Sixth General Council in 680. Their opinions took root among the Mardaites, a people of Lebanon, who about the end of the 7th century received the name of MARONITES, from Maro their first Bishop. They afterwards abjured the Monothelite heresy, and were admitted into communion with Rome in 1182.

We can now trace the effects of these successive schisms on the fortunes of the Syriac alphabet. The Christians of Persia were exclusively Nestorian, so that the line which divided the Sassanian kingdom from the Roman empire severed also the Churches of the East from the culture of the ancient school of Edessa. Henceforward the Syriac alphabet is parted into two branches, the Eastern and the Western, which pursued their independent developments. The Nestorian, or, as it is sometimes called, the Syro-Chaldaic alphabet, is merely the Syriac alphabet as it was used in the Sassanian realm.

The Nestorians took with them that form of the Estrangelo which prevailed at the time of the schism. We possess Nestorian MSS. dated in the years 600 and 768 A.D., but the forms vary little from the Estrangelo of the 6th century. The distinctive Nestorian peculiarities make their earliest appearance in a MS. written at Haran in 899 A.D. The modern Nestorian, as now used by the Syro-Chaldee Churches in the Persian province of Azerbijan, exhibits somewhat more cursive forms, but is nevertheless the most archaic of existing Syriac scripts.

It was probably about the 9th century that the Nestorian alphabet was carried by Nestorian missionaries to India, where it is still used by their converts, the so-called "Christians of St. Thomas," on the Malabar coast. Nine additional characters have been borrowed from the Malayalim, a local Indian alphabet, in order to express certain peculiar Dravidian sounds. The original twenty-two Syriac letters have however remained almost absolutely true to the Nestorian forms of the 9th century. This curious composite alphabet is called KARSHUNI, a term whose meaning is unknown, though it is probably of Syrian origin, being also applied by the Maronites to the Syriac characters in which Arabic is sometimes written.

It is not only on the Indian Ocean that we find traces of the successful labours of the Nestorian missionaries. Soon after the schism they penetrated among the Turkic hordes of Central Asia, and even

crossed the great Wall of China. The Mongolian, the Kalmuk, and the Manchu alphabets, to whose singular history the next section will be devoted, are found to resolve themselves into slightly disguised forms of the Estrangelo alphabet as it was at the time of the Nestorian schism.

Within the Roman frontier the fortunes of the Syriac alphabet were less eventful. In the 6th century the Jacobite revival of the Eutychian heresy divided the Western Syriac alphabet into two branches, a northern and a southern. The Syrians of Palestine, who remained in communion with the Orthodox Church, are known by the name of Melchites, while the northern Syrians followed Jacob Baradæus, who became Bishop of Edessa. The modern Jacobites, who may be said to continue the Syrian Church and alphabet in the line of direct descent, are now under the Patriarch of Antioch. Their alphabet differs little from that of the Maronites of the Lebanon, and goes by the names of Modern Syriac, Peshito, or Serta. The types in column iv. of the Table on p. 288 were cut under the direction of the present Patriarch of Antioch, and represent the Jacobite alphabet of the 12th or 13th century.[1] The modern Jacobite, or Serta, will be found in column v. of the same Table.

Of the alphabet used by the Melchites of Palestine, whose separation from the other Syrians dates from the Council of Chalcedon, two widely different forms

[1] Cf. Land, *Anec. Syr.*, vol. i., plate xxi.

are known,—an early uncial form which is found in three very ancient MSS. which probably belong to the 7th or possibly to the 6th century, and a later cursive form employed in numerous MSS. from Nitria and elsewhere, dating from the 11th to the 14th centuries. These two forms are so distinct that they may conveniently be distinguished by separate names. The uncial Melchite, called Hierosolymitan by Adler and Hoffmann, goes generally by the name of the Syro-Palestinian.[1] This remarkable alphabet preserves and exaggerates many of the most archaic features of the Estrangelo, but, as Land has suggested, it has doubtless been affected by an intentional imitation of the style of Byzantine manuscripts. The Melchites being the only Syrians who remained in communion with the orthodox Greek Church, this Byzantine influence can be easily accounted for. The later cursive Melchite is wholly unlike the Syro-Palestinian, and is the most deformed of all Syriac scripts.

The evidence of Greek influence is not confined to the Syro-Palestinian alphabet, but is curiously exhibited by the Jacobite adoption of superscribed Greek vowels in place of the primitive Syriac system of points. The five vowel sounds *a*, *e*, *o*, *i*, *u*, which in the older notation were indicated by the points ÷ ̣ ̇ ̣ ̣ ̣ ̣, are conveniently expressed by the symbols ̣ ̣ ̣ ̣ ̣, which

[1] See col. ii. of the Table on p. 288. Cf. Land, *Anec. Syr.*, vol. i., p. 89; Wright, *Catalogue of Syriac MSS.*, plate 18; Nöldeke, *Syr. Gram.*, col. 5 of the *Schrifttafel.*

are merely the Greek vowels A E O H Y turned upon their sides.[1]

It is doubtful whether the singular Mendaite character[2] should be classed among the Syriac alphabets. It is used by the people who are variously called Sabeans, Nazarenes, Galileans, or Christians of St. John, but who call themselves Mendaï. They inhabit a region on the lower Euphrates, near Bassora. They retain vestiges of the Magian planetary worship, combined with a rudimentary Christian teaching, and they practice certain rites which have been supposed to be of Jewish origin. Their language is Aramaic, approaching to the Talmudic Chaldee, and they possess a very ancient literature, written partly in the Nabathean dialect, and partly in the Sabean, of which the "Book of Adam" is the most important relic. Their alphabet is of a character as composite as their religious beliefs, exhibiting affinities with alphabets of varied types. It is probably based on the ancient local Aramean of Chaldea which is exhibited in the legends on the coins of the Kings of Characene, assigned to the 2nd century A.D., and in an inscription at Abushadr.[3] Some of the letters, such as *aleph*,

[1] The reason why this prone position was adopted will be presently explained. See p. 306 *infra*.

[2] Given in column viii. of the Table on p. 288.

[3] The alphabet of this inscription, which is conjecturally assigned to the 5th century A.D., is given in column iii. of the Table on p. 326. It belongs to the Nabathean type.

seem to be Nabathean. The long supremacy of the Sassanian kings may possibly account for certain Pehlevi forms, while the Syriac mould into which the alphabet has been cast seems to bear witness to Nestorian influence.[4] The vowel notation is unique, degraded forms of *aleph*, *vau*, and *yod* being suffixed to the consonants so as to form a sort of syllabary, which finds its nearest analogue in the methods by which the vowels are denoted in the Ethiopic and the old Indian writing.

§ 7. MONGOLIAN.

Turning from the scripts of the cultured Semitic nations, we have now to examine the alphabets used by the Ural-Altaic races of Central Asia.

These tribes have possessed three alphabets of distinct origin. The first is the Syriac alphabet introduced by the Nestorian missionaries, the diffusion of which forms one of the most curious episodes in the whole History of the Alphabet; the second is an Indian alphabet obtained from the Buddhists of Tibet; the third is the Arabic alphabet which came in with the Mohammedan conquest.

The introduction of each of these three alphabets was due to religious causes. It is because Christianity,

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[4] The forms of several Mendaite letters, such as *h*, *r*, *s*, find their nearest analogues in the Mongolian alphabet.

Buddhism, and Islam have been the great aggressive missionary religions, that the alphabets of their sacred books have spread so widely that they may be said to share the world between them. Religious proselytism has proved to be more potent in effecting the dissemination of alphabets than even political or commercial influences.

Certainly no cause could seem to be more inadequate than a decree of an obscure council at Ephesus dealing with an abstruse point of theosophic speculation, yet it sufficed to cause the local alphabet of a remote Syrian city to become the parent of a family of alphabets which stretch more or less continuously across Central Asia, from the Volga in the West to the shores of the Pacific Ocean in the furthest East.

The researches of Klaproth and of Abel-Rémusat,[1] at the beginning of the present century, finally set at rest the question as to the nature and affinities of the Tartaric and Mongolian alphabets. When once the Nestorian clue had been discovered all serious difficulty ceased. The ancient forms of the letters have suffered so little change, that Vámbéry found that a Nestorian from Urumiah was able without assistance to decipher parts of an ancient Tartar manuscript which had been written at Herat.

The Nestorian schism dates from the 5th century. Within a hundred years the Nestorian missionaries

[1] Klaproth, *Abhandlung über die Sprache und Schrift der Uiguren*, 1812; Abel-Rémusat, *Recherches sur les langues tartares*, 1820.

who were sent forth from Nisibis passed the eastern limits of the Sassanian kingdom, and went out into the regions beyond. About the beginning of the 7th century they reached Kashgar, which seems to have become the chief centre of their mission work, and from hence they spread themselves among the surrounding Tartar tribes. So successful were their missionary enterprises that, by the beginning of the 8th century, Nestorian archbishoprics had been established at Herat, at Samarkand, and even in China itself.[1]

Any scepticism which might be entertained as to the extent of the Nestorian enterprise must disappear in face of an inscription which was accidentally dug up in the year 1625 at Sin-gan-fu in China. It is engraved on a stone slab, about six feet by three, with a cross carved at the top. It bears a date corresponding to 781 A.D., and contains an abstract of Christian doctrine in Chinese characters. The names of the Nestorian patriarch, of the bishop, and of several priests are appended, written in an alphabet which proves to be excellent Estrangelo. The genuineness of this inscription, which at one time was doubted, has been established by Pauthier, and has been fully accepted by Klaproth, Abel-Rémusat, and Renan.[2]

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[1] The scattered notices which refer to the establishment of the Nestorian missions in Central Asia and China have been collected by Col. Yule, *Cathay and the Way thither*, Preliminary Essay, pp. 88 to 101.

[2] See Renan, *Langues Sémitiques*, third edition, p. 290.

Naturally the art of writing took its chief hold among those of the Tartar tribes who were most advanced in civilization. These were the Uigurs—the Ogres of old romance—who were the ruling race in the regions now known as the Khanates of Khiva and Bokhara. They were the earliest of the tribes of Central Asia to adopt the Nestorian writing, which for a considerable time remained chiefly in their possession. In the 12th and 13th centuries Uigurs were employed almost exclusively by Genghis Khan and his three immediate successors as secretaries, chancellors, and physicians. The Uigur alphabet was thus established as the usual medium of written intercourse throughout the vast region over which the Mongol Empire extended, and it became the parent of the existing alphabets of the more barbarous tribes —the Mongols, the Kalmuks, and the Manchus.

In the 13th century Marco Polo found many Christians among the Turkic and Mongolic tribes, and even in China itself, but with the progress of Islam Christianity disappeared and Buddhism retreated. Among the Uigurs themselves the Nestorian writing gave place to Arabic, which is now used exclusively in the Khanates, so that the alphabets derived from the Nestorian missionaries are now employed only among the hordes of Mongol blood who are still beyond the pale of Islam.

A most important and curious relic of the ancient Uigur literature and alphabet has recently been

brought to light. This MS., which is now at Vienna, is a copy made in the fifteenth century of a Tartar poem composed in the eleventh century.[1] It is of unique interest, literary, palæographical, and linguistic. The MS. is entitled the Kudatku Bilik, which may be translated "the blessed knowledge." It is a somewhat lengthy poem treating of the duties, virtues, vices, and characters of persons in every position of life—princes and subjects, parents and children, husbands and wives, physicians, generals, merchants, peasants, and servants. The Kudatku Bilik, though it took its present form after the conversion of the Turkic tribes to Islam, yet reflects the Pre-Islamite state of thought and morals, giving a most curious insight into the primitive beliefs and civilizations of the tribes of central Asia, and is of interest inasmuch as it is the earliest specimen of literary effort among any of the Turkic races. From a philological point of view it is important, insomuch as it constitutes the oldest existing monument of Tartaric speech, occupying

[1] From a colophon at the end of the Vienna MS., we learn that it was written at Herat in the year 843 A.H. Thirty-six years later it was taken from Herat to Tokat, and from thence to Stambul, where it was ultimately acquired by the Baron Hammer-Purgstall, from whose possession it passed to the Imperial Library at Vienna. The MS. professes to be a copy of another which was written in 463 A.H., nineteen years after the death of Bogra Khan, in whose reign it purports to have been composed. It has been excellently edited by Vámbéry, *Uigurische Sprachmonumente und das Kudatku Bilik.* (Innsbruck, 1870.)

in relation to the Turkic group of languages the same position that the translation of the Gospels by Ulphilas bears to the Teutonic dialects. Palæographically it supplies the earliest existing specimen of the Nestorian alphabet as adapted to the use of the Ugro-Altaic tribes, thus furnishing the connecting link between the Nestorian writing and the various Mongolian alphabets.

The most important of these alphabets is the Mongolian Proper, which is used by the Khalkas and other Mongolian Buddhists who are found north of the desert of Gobi. It has diverged less from the Nestorian than any other of the Mongolian alphabets, except the Uigur.

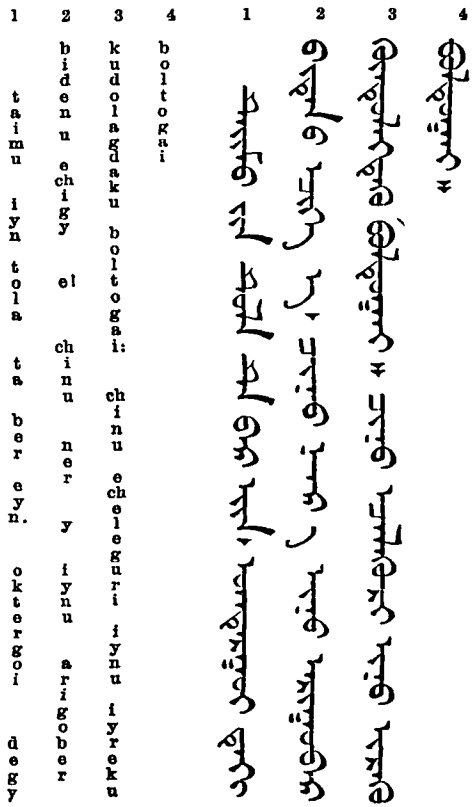
During the reign of Kublai Khan (1259 to 1294) and his successors, the Uigur alphabet, under the influence of Buddhist teachers, was developed and adapted to the needs of Mongolic speech by the adoption of five additional letters from the alphabet of Tibet. The enlarged alphabet thus formed is called the Mongol Galik, from the Sanskrit *Ka-lekah*,[1] the name given to the Indian alphabet.

At the beginning of the 17th century the Kalmuks, a branch of the Eleut Mongols, brought a simplified form of the Mongol Galik alphabet with them when

[1] The formation of this word is analogous to that of *alphabetum*, *abecedarium*, *futhorc*, *bobeloth*, and other names of alphabets. It is compounded of *ka*, the first letter of the Nagari alphabet, and the Sanskrit *lekah*, 'writing.'

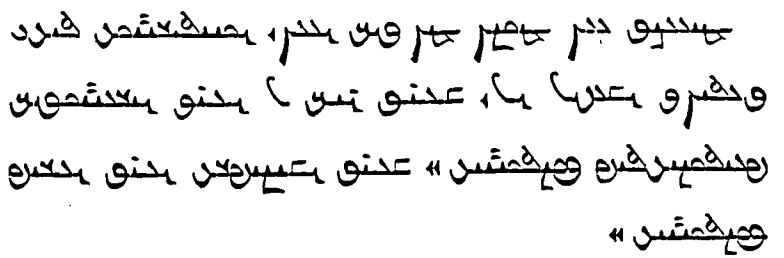
they settled on the lower Volga, where it is employed for the preservation of some fragmentary remains of Buddhist literature.

At the other extremity of Asia the Mongol alphabet was adopted at some unknown period by the Manchus, a Tungusic tribe, who overran the Chinese empire at the beginning of the 17th century, and who supply the ruling dynasty of China. The Manchu alphabet, which has developed a large number of additional symbols, is also used by the Buriat Mongols, who are settled to the north of the Baikal.

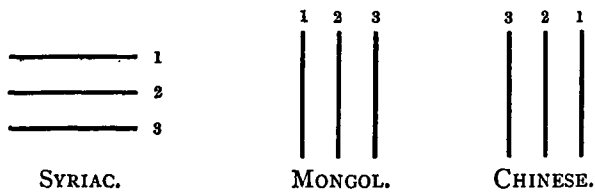

1 2 3 4
taimu iyn tola ta ber eyn. oktergoi degy
biden u echigy el chinu ner iynu arigober
kudolagdaku boltogai: chinu echelegduri iynu iyrekü
boltogai
1 2 3 4

These various Mongolian scripts are much alike, but seem to present little external resemblance to the Syriac, from which they were derived. The difference is, however, merely superficial, being due principally to the altered direction of the writing.

The Mongolian is written in vertical columns from the top to the bottom of the page, as in the accompanying specimen, which contains the first four clauses of the Lord's Prayer. Syriac is written in horizontal lines from right to left; and it is only necessary to turn the Mongolian writing through an angle of 90°, and its resemblance to Syriac becomes at once conspicuous.



Abel-Rémusat suggested that the vertical writing of the Mongols was an imitation of the Chinese practice. This explanation, however, can easily be shown to be insufficient, as in that case the lines would begin, as in Chinese, at the right hand margin of the paper instead of from the left, as is the case. The arrangement of the lines proves that the Mongolian writing is the Syriac turned round, the lines in the three scripts being arranged as follows :—

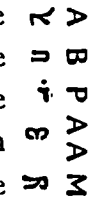


The true explanation was first pointed out by Bayer. At

the time when the Nestorian writing was introduced into Central Asia, the Syrian scribes, as the grammarians inform us, were themselves accustomed to write from the top to the bottom of the page, the writing being turned round into the usual position in order to be read. That the Nestorian missionaries also wrote thus is shown by the inscription at Sin-gan-fu, in which the Estrangelo characters are disposed in vertical lines.

This habitude of writing explains some curious phenomena which are exhibited by ancient Syriac MSS. Thus in some Syriac codices we find Greek marginal notes written at right angles to the lines of the text, proving that the scribes who were accustomed to write Syriac vertically, wrote Greek in horizontal lines, as we do ourselves. Land cites an instance from a MS., now in the British Museum,[1] which was written in the 6th century, soon after the Nestorian schism. The scribe, in order to fill up a vacant space, scribbled, in Greek letters, the word Abraam, and then transliterated it in Estrangelo characters. A B P A A M If he had been in the habit of writing in ܐ ܒ ܪ ܗ ܡ horizontal lines, this experiment in Greek calligraphy would have been written with the A B P A A M Estrangelo characters correspondingly ܐ ܒ ܪ ܗ ܡ arranged below the Greek characters. Instead of this,

[1] British Museum Add. MSS., No. 14,558, folio 171; Land, *Anec. Syr.*, vol. i. p. 60, and plate vii. No. 27.



the Syriac letters are at right angles to the Greek, whence it appears that the lines of the parchment on which he was writing must have been held in a vertical position. Hence we obtain a simple explanation of the prone position of the superscribed Greek letters which were used to denote the vowels in Jacobite manuscripts (see p. 295). The Greek letters were naturally written as they would appear in Greek, and hence when the writing is turned round they appear to be lying on their sides.

The practice of writing in vertical lines was probably a mere matter of convenience. As the pen moves from right to left across the paper the fingers which support the hand are apt to blot the word that has last been written, an inconvenience which is obviated by the adoption of vertical lines. At the same time the thick connecting ligature which is so characteristic of Syriac and Mongolian scripts, and from which the Serta (Peshito) writing derives its name, can be produced more easily by a downward stroke than by a lateral movement of the pen, as will easily be discovered by an attempt to copy the Mongolian Paternoster given above.

The practice of writing in vertical lines, which was discontinued by the Syrians in the 13th century, was permanently retained by the Mongols, possibly because the practice facilitated the interlinear translation of Chinese documents.

In comparing the Mongolian letters with their Syriac prototypes it is necessary to replace them in the original position in order to recognize the resemblance. This has been done in the Table on the following page.[1] Column iv. exhibits the Mongolian letters in their customary position. Column iii. contains the same letters turned round, so as to correspond with the Uigur letters from the Kudatku Bilik which are given in column ii., and also with the probable[2] Syriac prototypes in column i. Column v. shows the greatly developed alphabet employed by the Buriat Mongols and the Manchus.

The adaptation of the Syriac script for the requirments of Altaic speech is of considerable interest. It

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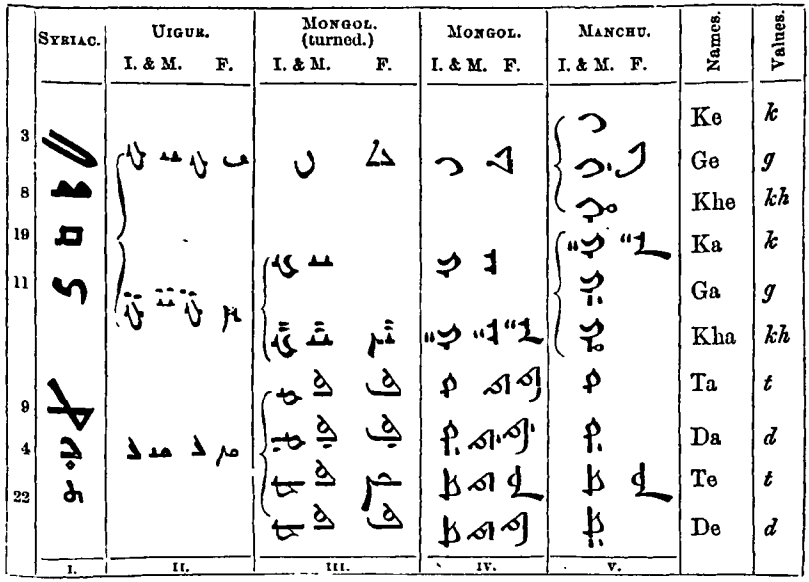
[1] This table gives only a summary of results. The evidence for the various identifications would occupy a space greater than would be warranted by its interest or importance. As regards the Mongolian letters, the sources of information are indicated in Vámbéry's *Uigurische Sprachmonumente* and in chapter viii. of Lenormant's *Alphabet Phénicien*. For the Syriac forms, see Euting's *Schrifttafel* in Nöldeke's *Syrische Grammatik*, and Land's *Anecdota Syriaca*.

[2] The letters of dubious attribution are placed in a separate Table on p. 309. It is not always possible to refer the Mongolian letters to a single Syriac prototype. Thus with regard to the two Uigur palatals the medial forms of both ﺤ and ﺣ seem to be from the Syriac *ḥeth* ﺣ, while one of the final forms ﻖ seems to be from *qof* ﻕ, and the other ﻚ from *kof* ﻛ. The same seems to have taken place with the dentals, ﻄ resembling *teth* ﻁ, while ﻂ is more like *tau* ﺕ, and ﻃ like *dolath* ﻁ. This explanation is rendered more probable by the fact that similar processes have also taken place in Arabic, as will be shown in the ensuing section, p. 332.

THE MONGOLIAN ALPHABET.

	Syriac.	Uigur. I. & M.	Uigur. F.	Mongol. (turned.) I & M.	Mongol. (turned.) F.	Mongol. I. & M.	Mongol. F.	Manchu. I. & M.	Manchu. F.	Names.	Values.
1										A	*a*
										E	*e*
2										Fa	*f*
										Wa	*w*
6										O	*o*
										U	*u*
										O	*ó*
										I	*i*
10										Ya	*y*
										Ja	*j*
										Jha	*jh*
12										La	*l*
13										Ma	*m*
14										Na	*n*
15										Za	*z*
										Sa	*s*
17										Ba	*b*
										Pa	*p*
18										Cha	*ch*
										Chha	*chh*
										Zha	*zh*
20										Ra	*r*
										She	*sh*
21										Dze	*dz*
										Tze	*tz*
	I.	II.		III.		IV.		V.			

THE GUTTURALS AND DENTALS.



affords a conspicuous illustration of the modifications needed when a Semitic alphabet comes to be used for the expression of a non-Semitic language.

As in the case of the Greek, Indian, and Pehlevi adaptations, characters to denote the vowels were necessarily developed. Seven vowels were obtained from three of the Semitic breaths and semivowels. Two vowel-signs, for *a* and *e*, were obtained from *aleph;* one, for *i*, from *yod;* and four, for *ŏ*, *ŭ*, *ō*, *ū*, from *vau*.

It is also instructive to note the manner in which the Mongols obtained the large number of additional consonants which they required. As in the Armenian, Indian, Parsi, Greek, and other alphabets, this was in

no case effected by the invention of new symbols, but by the differentiation of the old. Thus the Syriac letter *tsodhe* ܨ *ṣ* is plainly to be identified with the Uigur letter ᡯ which has the double value *ts* and *tz*. From this were derived three Mongolian letters, ᡮ *ch*, ᡰ *chh*, and ᡱ *zh*. Again, the Syriac *yudh* ܝ, *y*, which appears in Uigur as ᠶ with the two values *i* and *y*, was the source of the four Mongolian characters ᠢ *i*, ᠵ *j*, ᠶ *y*, and ᡩ *jh*. In this way, from the seventeen or eighteen Syriac characters which were taken over,[1] between thirty and forty Mongolian characters were developed, in addition to those which were derived from Buddhist sources.

It will be noticed that it is not always from the so-called Nestorian letters that the Uigur and Mongolian forms can be most readily derived. This can easily be accounted for. Since the distinctive peculiarities of the Nestorian writing were not developed before the

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[1] Of the original twenty-two Syriac letters several seem at first to have fallen into disuse, the nicer phonetic distinctions being apparently ignored. A more exact notation of sounds being afterwards required, the surviving characters were nearly doubled in number by differentiation. Thus of the four Syriac sibilants two, or perhaps three, were retained in Uigur, and these were differentiated into nine Mongolian letters. The seven Syriac dentals and gutturals are reduced to three in Uigur, which were developed into ten in Mongol. The Syriac *p* yielded signs for *p*, *b*, and *v*; while *w* and *f* were obtained from the Syriac *b*. A similar operation was effected in Parsi, forty-five characters having been evolved out of the seventeen Aramean letters which were taken over.

9th century A.D. it is plain that the Mongolian alphabets must have been derived from some earlier type. Hence the Estrangelo and Syro-Palestinian alphabets of the 6th and 7th centuries frequently supply better prototypes for the Mongolian forms than the more recent Nestorian characters.[1] In some cases[2] the nearest analogues are found in the alphabet of the Mendaïtes. Klaproth even went so far as to refer the origin of the Mongolian alphabet to the Mendaïte rather than to the Nestorian script. It is more probable that the analogies between the two alphabets are due to the Manichæans, who, like the Nestorians, had fled from persecution into Persia. To their teaching some of the peculiar dogmas of the Mendaïtes may perhaps be traced, while, as Reinaud has shown, they also exercised considerable influence in the regions beyond the Oxus.[3]

It appears possible also to detect the traces of Arabic influence in the Uigur,[4] if not in the Mongol alphabet. For instance, the diacritical point which

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[1] See columns ii. iii. and vi. of the Table on p. 288.

[2] Such as *r*, *t*, and *k*. In Mongol as in Mendaïte the derivative of *shin* is differentiated by two subscribed dots. A coincidence so precise can hardly be due to accident.

[3] See Renan, *Langues Sémitiques*, p. 289.

[4] The external appearance of the writing in the Kudatku Bilik is much assimilated to the Arabic style, and this is still more the case with the later Uigur alphabet given by Kasem-Beg, *Gram. d. Türkisch-Tatarischen Sprache*, plate v.

distinguishes ᠨ *n*, from ᠠ *a*, may have been suggested by the similar point which marks the Arabic ن *n*. Thus it would appear that the formation of the Mongolian alphabet may have been affected by elements derived from four distinct religious sources—Nestorianism, Manichæism, Buddhism, and Mohammedanism.

§ 8. ARABIC.

Of all existing alphabets the Arabic, both from its literary importance and its geographical extent, ranks next after the great Latin alphabet itself. These two cosmopolitan alphabets are the alphabets of the two great cosmopolitan religions; all others, in comparison, are merely national or provincial. The Arabic has not only exterminated the other Semitic alphabets, but has encroached upon extensive regions once occupied by alphabets of Greek and Roman origin. It has expelled the Greek alphabet from Asia Minor, Thrace, Syria, and Egypt, and the Latin alphabet from Northern Africa; and is now used over regions inhabited by more than one hundred millions of the human race. In its numerous varieties it prevails in Morocco, Algiers, Tunis, Tripoli, Egypt, and down the eastern coast of Africa as far as Zanzibar. It is the sole alphabet employed in Arabia, Western Asia, Persia, Afghanistan, and the Tartar Khanates, besides being the best known of all the alphabets employed

in India. It is no longer, as it was at first, the mere alphabet of a religion or of a dialect. The alphabet of the Koran is now the chief commercial alphabet of the East. It constitutes the official script by means of which three Asiatic empires are ruled, and has been adapted to express the peculiar sounds of languages of the most varied type—Arabic, Turkic, Persian, Pushtu, Beluchi, Hindustani, and Malay.

That the local alphabet of Mecca should have exterminated all other Semitic scripts, and have established itself as the dominant alphabet of Africa and Asia, is an illustration more striking than any other that can be adduced of the power of religious influences in effecting a wide and rapid diffusion of alphabets. We have seen how the Nestorian schism took three centuries to carry a local Syrian alphabet from the Mediterranean to the Pacific, while a much longer period was required by the marvellous propaganda of the Buddhist missionaries to spread an Indian alphabet from Ceylon to Corea, from the Caspian to the Philippines. The diffusion of the alphabet of the Koran from the Indian Ocean to the Atlantic was effected with far greater rapidity. It took no more than eighty years (632–712) for the Arab conquerors to found a dominion wider in extent than the widest empire of Rome, and to extend the alphabet of Mecca from the Indus to the Tagus.

Yet vast as is the range of this great alphabet, which now stretches across the old world from the

Atlantic to the China Sea, it is almost wholly unknown beyond the limits of its own domain. It is rare to meet with an educated European or American who can read an Arabic book, and still more rare to find one who has any knowledge of the history of the script. I well remember the incredulous astonishment of a great Indian administrator, who had been accustomed to the familiar use of the Arabic alphabet for more than a quarter of a century, when he was told that the Arabic was collaterally related to our own alphabet, and that both might be traced back without difficulty to the same primitive Phœnician source. If such be the case with an Arabic and Persian scholar of no mean practical attainments, it may perhaps be permissible in these pages to treat this portion of the subject in an elementary manner, assuming no special knowledge on the reader's part.

It can readily be shown that the Arabic alphabet, greatly though it differs in outward aspect from other Semitic scripts, is a member of the Aramean family. Of the literary alphabets it approaches most closely to the Syriac, although the approximation is somewhat disguised by reason of the change in the number, form, and arrangement of the characters. The essential identity of the modern Syriac and the modern Arabic alphabets is conveniently exhibited in the comparative Table on the opposite page. The ancient alphabetic order, as evidenced by the numerical values attached to the letters, taken in connection with

COMPARATIVE TABLE OF SYRIAC & ARABIC ALPHABETS.

SYRIAC.				ARABIC.			
Order.	Ancient Names.	Forms. I. F.	Numerical Values.	Primitive Order.	Names.	Neskhi Forms. I. M. U.	Numerical Values.
1	Alaf	ܐ	1	1	Alif	ا	1
2	Beth	ܒ	2	2	Be	ب بـ بـ	2
				22	Te	ت تـ تـ	400
					The	ث ثـ ثـ	500
3	Gamal	ܓ	3	3	Jim	ج جـ جـ	3
				8	Ḥa	ح حـ حـ	8
					Kha	خ خـ خـ	600
4	Dalath	ܕ	4	4	Dal	د	4
5	He	ܗ	5		Ḍal	ذ	700
6	Vau	ܘ	6	20	Re	ر	200
7	Zain	ܙ	7	7	Ze	ز	7
8	Ḥeth	ܚ	8	15	Sin	س سـ سـ	60
9	Ṭeth	ܛ	9	21	Shin	ش شـ شـ	300
10	Yodh	ܝ	10	18	Ṣad	ص صـ صـ	90
11	Kaf	ܟ ܟ	20		Ḍad	ض ضـ ضـ	800
12	Lamadh	ܠ ܠ	30	9	Ṭa	ط طـ طـ	9
13	Mim	ܡ ܡ	40		Ẓa	ظ ظـ ظـ	900
14	Nun	ܢ ܢ	50	16	'Ain	ع عـ عـ	70
15	Semkath	ܣ	60		Ghain	غ غـ غـ	1000
16	'E	ܥ	70	17	Fe	ف فـ فـ	80
17	Pe	ܦ	80	19	Qaf	ق قـ قـ	100
18	Ṣadhe	ܨ	90	11	Kef	ك كـ كـ	20
19	Qof	ܩ	100	12	Lam	ل لـ لـ	30
20	Resh	ܪ	200	13	Mim	م مـ مـ	40
21	Shin	ܫ	300	14	Nun	ن نـ نـ	50
22	Tau	ܬ	400	5	He	ه هـ هـ	5
				6	Waw	و	6
				10	Ye	ى يـ يـ	10

their abraded names, makes it easy by the aid of the Syriac alphabet to identify the Arabic characters with their Aramean prototypes.

It is evident that the bracketed characters are merely differentiations of the same primitive forms. By excluding these six new letters, whose recent origin is shown by their numerical values, the Arabic alphabet is reduced to the primitive number of twenty-two letters. The numerical values serve to identify the several letters, all of which, except those with connecting lines, have been dislocated from their original positions. The changes in the arrangement can mostly be accounted for by two causes which have largely influenced the rearrangement of other alphabets. It is evident that letters have been brought into juxtaposition either on account of the resemblance of their forms, or because of the similarity of their phonetic powers. Thus *te* ت has been brought from the end of the alphabet into the third station because of the resemblance of form to *be* ب, while *re* ر for a like reason has been moved up thirteen places and placed next to *ze* ز. The juxtaposition of *qaf* and *kef* is due to the similarity of their powers. Both causes have co-operated in bringing about the collocation of the sibilants in the middle of the alphabet.

The Arabic alphabet, commonly so called, which has been employed in the preceding Table, is only one of numerous varieties, which bear much the same

mutual relation as the various types of the Latin alphabet. There are calligraphic styles, such as the Diwani, the Rika'a, and the Ta'alik, whose differences are of the same nature as are seen in the Italic, Roman, and Gothic letters of our printing-offices. And as there are national varieties of the Latin alphabet, such as the Italian with its 22 letters, English with 26, and Bohemian with 40, so we have the Karmathian Arabic with 17 letters, the Persian with 30, the Turkish with 32, the Afghan with 42, and the Indian with 49. The additional letters are distinguished by diacritical marks, as is the case with the supplementary characters, such as ñ, š, ç, å, which are used in various European alphabets.

The two most important varieties of Arabic are the Neskhi and the Kufic. No two scripts can well be more dissimilar in appearance; the Kufic being singularly square and monumental, while the Neskhi is one of the most formless of all existing alphabets. Neskhi, which means the "writing of transcribers," is the ordinary cursive Arabic in which books and newspapers are printed. The Kufic, which bears to the Neskhi something of the same sort of relation which the uncial writing of mediæval manuscripts bears to modern running hand, has practically fallen into disuse since the 14th century. It took its name from the town of Kufa on the Euphrates, which at one time was the seat of a great school of Mohammedan learning. At an early period it was employed as an

ornamental character for costly copies of the Koran, and was afterwards extensively used as a sort of architectural ornamentation for the decoration of mosques and palaces.

Of the less important varieties, the Karmathian, which is chiefly used in the north of Arabia, is intermediate in character between the Kufic and the Neskhi, being less square and stiff than the one, and less cursive than the other. The Maghrebi, which is the script of Morocco and Algiers, is also less cursive than the Neskhi, and much easier to read. Of the Neskhi character there are several national varieties, differing chiefly in the number of the letters. The chief of these national Neskhi alphabets are the Persian, the Turkish, the Afghan, the Hindustani, and the Malay, each of which contains additional signs to express the peculiar sounds of those languages. In the Malay and Hindustani the Neskhi characters are arranged according to the *kalekah* method, so as to correspond with the order of the letters in native Indian alphabets.

There are several scripts which are little more than calligraphic styles. The Diwani, a bold round hand, is the official Turkish character adopted for passports and similar documents. The Rika'a is employed by Arabs and Turks for ordinary correspondence. The Ta'alik, or 'hanging' writing, is an elegant court hand, much admired in Persia. The Thuluth is a fanciful character which lends itself to the calligraphic flourishes

and involutions which are thought appropriate to the titles of books and the headings of documents; while in the Jeri and the Jeresi, as the names imply, the utmost possible limits of intricacy and convolution have been attained.

All the varieties of Arabic writing, whether national or merely calligraphic, may however be ultimately referred to one of the two great early styles, the Kufic and the Neskhi. The relation which subsists between these two types has formed the subject of keen controversies, which involve the question as to the ultimate origin of the Arabic alphabet itself.

The Kufic has been generally considered by Arab writers to be the primitive script from which the Neskhi was afterwards derived. From the time of Pococke to that of de Sacy this belief was accepted without question by European scholars. It was also assumed that the Kufic was itself derived from the Estrangelo,[1] an opinion which was maintained by Kopp, Gesenius, Caussin de Perceval, and at one time also by Renan. The more recent palæographical

[1] That the Arabic alphabet could not have been obtained from the Syriac is proved, among other reasons, by the fact that the tendency to assimilation affected different letters in the two alphabets. Thus, in the earliest Estrangelo MSS., which are older than the Mohammedan era by more than two centuries, the forms of ܕ (*d*) and ܪ (*r*) have already become identical, and are distinguished by diacritical marks, whereas in every Arabic script these two letters have remained distinct, the assimilation having affected ر (*r*) and ز (*z*), which are easily distinguishable in Syriac scripts.

investigations of de Sacy, Amari, and de Vogüé have shown both these assumptions to be untenable. Early dated Kufic inscriptions of unquestionable authenticity have now been recovered, and leave it no longer doubtful that the so-called Kufic style must have been employed by the Arabs at the time of their conquest of Syria, before the foundation of the city of Kufa.[1] These monuments do not exhibit that approximation to the Syriac forms which the hypothesis demands, differing in many essential points from all contemporary Syriac types.[2] It is no less certain that the Neskhi, instead of having originated, as was formerly supposed, as late as the 3rd century of the Mohammedan era, was used simultaneously with the Kufic in the reigns of the earliest Khalifs, if not during the lifetime of Mohammed himself. Indeed the probability is that the Koran was first committed to writing in an early form of the Neskhi alphabet.

Since it is no longer possible to maintain the old hypothesis that the Neskhi was derived from the

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[1] The Kufic writing no doubt obtained its designation from having been chiefly practised and perfected by the school of Arabic copyists for which Kufa subsequently became famous.

[2] The resemblances of the later Kufic to the Syriac, by which early scholars were misled, may be explained partly by the derivation of both alphabets from a common source, and partly by an assimilation to Syriac forms which seems to have taken place after the Arabs had established themselves in Syria. At Kufa no doubt the influence of Syrian scholars would be more strongly felt than in Egypt, where the Neskhi forms seem chiefly to have prevailed.

Estrangelo through the medium of the Kufic, the question arises whether any more probable source can be discovered. This problem can only be solved by determining the oldest forms of the Arabic letters.

Unrivalled among Arabic inscriptions, in its manifold interest, is the record which surrounds the colonnade of the Qubbet-es-Sakhra at Jerusalem.[1] This great mosque, which is commonly designated by its translated name, the "Dome of the Rock," stands within the Haram area, on a portion of the site of the Jewish Temple, and in all probability it actually covers the venerable boss of smooth limestone rock which formed the historic threshing-floor of Araunah the Jebusite. On a border of blue tiles running above the arcades which support the dome is a long Kufic inscription in letters of gold. It consists of passages from the Koran, those verses being appropriately selected which bear upon the position claimed by Mohammed for Jesus of Nazareth. Between two of these verses, and near the great southern door, comes the dedicatory inscription of the founder, of which a facsimile is given on the next page.[2]

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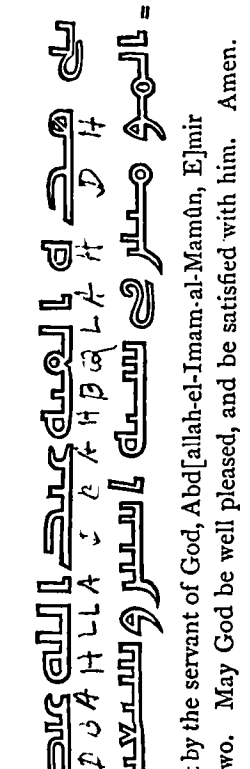
[1] The best account of this inscription, with an admirable facsimile, will be found in de Vogüé, *Le Temple de Jérusalem*, p. 84. A translation of the whole inscription is given by Besant and Palmer, *Jerusalem, the City of Herod and Saladin*, p. 86. Cf. Madden, *Coins of the Jews*, p. 280.

[2] It has been necessary to divide the facsimile into two lines. In the original it is continuous.



This dome (*alquheh*[1]) was built by the servant of God, Abd[allah-el-Imam-al-Mamûn, Ejmir of the Faithful, in the year seventy-two. May God be well pleased, and be satisfied with him. Amen.

Not only does this inscription exhibit a very early type of the Arabic alphabet; but it is especially curious as having been the subject of an historical forgery as audacious and as futile as any that can be named. The inscription purports to be a record of the erection of the mosque by Al-Mamun, Commander of the Faithful. This Khalif ruled from 198 to 218 A.H., (813–833 A.D.,) whereas the date given in the inscription is the year 72 A.H., which falls within the reign of the Khalif Abdalmalik, to whom with one accord the Arab historians attribute the erection of the building. That part of the inscription which in the facsimile has been enclosed in brackets is contained on two tiles which differ in the colour of the blue ground from the more subdued tone of the remainder. It will also be observed that the letters on these two tiles are of a somewhat different style from the rest, and are crowded together without any division between the words. If, with careful

[1] This is our 'alcove,' a word introduced by the Arabs into Spain.

measurement, the bracketed portion of the inscription be reconstructed in the same open style of Kufic letter which is used elsewhere, it will be found that the space is exactly filled by the six letters required to complete the name of Abdalmalik. The audacity of Al-Mamun's attempt to impose on posterity will perhaps be more conspicuously seen by exhibiting in Roman characters, letter for letter, the crucial portion of the conjectural record, placing below it the inscription as it actually stands:

BNY HDH ALQBH ABD ALLH A B D A L M L K AMYR
BNY HDH ALQBH ABD ALLH A B D ALLHELIMAMALMAMUNA M Y R

The history and motive of the forgery is explained by the fact that Al-Mamun has also placed inscriptions, correctly dated in the year 216 A.H. (831 A.D.), over the other doors of the mosque, claiming for himself the merit of its erection. This claim was contradicted by the original inscription. It is therefore manifest that 144 years after the mosque was built Al-Mamun took out two tiles, containing six letters of the name of the founder, replacing them by two nearly similar tiles, on which eighteen letters containing his own name were crowded. If it had not been for his oversight in omitting to alter the tell-tale date in the original record, the attempted imposture might have been successful. As it is, he has only succeeded in placing beyond any shadow of doubt the name of the actual builder.[1]

[1] This inscription is obviously fatal to Mr. Fergusson's persistent

The inscription on the Dome of the Rock, though by far the most interesting, is not the oldest record in Kufic characters. Still more ancient are the legends on the coins of the early Khalifs, which date from the year 20 A.H. downwards. Two of them are represented below.

These coins are assigned to Mua'wiah, 46–60 A.H. (662-680 A.D.), who preceded Abdálmalik in the Khalifate. The Khalif is seen standing to the front, girt with a sword, with the legend, محمد رسول الله MOHAMED RASUL ALLAH, "Mohammed [is the] Apostle of God." The legends on the reverse, فاسطين 'Palestine' and ايليا 'Aelia,' show that the coins were struck at Jerusalem, while the Byzantine **M**, the Greek numeral for 40, which is seen beneath the crescent, serves as an index of the value, forty *nummi*, proving that the early Khalifs imitated the coins of the Byzantine empire which were current in Syria.[1]

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contention that the "Dome of the Rock" is to be identified with the Church of the Sepulchre, built by Constantine, and it also incidently upsets his reconstruction of the topography of Jerusalem. He has the courage to meet the difficulty by pronouncing the inscription, whose genuineness is so curiously vouched by the mutilation, to be a *forgery!* See Madden, *Coins of the Jews*, p. 278.

[1] The determination of the primitive Kufic alphabet depends on

The oldest specimens of Neskhi are hardly less ancient.[1] There are two Egyptian passports of the year 133 A.H.,[2] and a private letter, also written in Egypt, dated in the year 40. Some stray leaves from copies of the Koran, written in an alphabet of the same apparent date as this letter, but with more deliberate and careful penmanship, were brought from Egypt by M. Asselin, and are now in the Bibliothèque Nationale at Paris. Some of these leaves are of special significance, as they are supposed to represent the primitive alphabet, not of Egypt, but of Mecca and Medina. They have been assigned with considerable probability to the middle of the first century of the Mohammedan era. The alphabet of these fragments, for the use of which I am indebted to the kindness of M. Lenormant, is given in column vii. of the Table on the following page, as the best attainable representation of the earliest form of the Neskhi alphabet. The Kufic alphabet in column vi. has been carefully compiled from the coins of the Khalifs of the 1st

the inscription of Abdalmalik and the early coins. It may however be noted that Kufic inscriptions, belonging to the 1st century A.H., have been found in a cemetery at Assouan, in Egypt. A page of a very early Kufic Koran has also been published by the Palæographical Society.

[1] The letter addressed by Mohamed to the Coptic Patriarch is so faded that its palæographic value is not great. The alphabet seems to belong to the Kufic rather than the Neskhi type.

[2] Facsimile in Silvestre, *Paléographie Universelle*, plate 29. facsimile of an Egyptian Neskhi papyrus of nearly the same date has been published by the Palæographical Society.

THE ARABIC ALPHABET.

	ARAMEAN. (PALMYRA.)	NABATHEAN.				ARABIC.					
		HAURAN.	ABUSHADHR.	PETRA.	SINAI.	KUFIC.	NESKHI.	KOPTIC.	NESHKI.		
	Sec. iii. A.D.	Sec. i. A.D.	Sec. iv. A.D.	Sec. i. A.D.	Sec. v. A.D.	Sec. vii.	Sec. vii.	Modiuval	Modern.		
						I F.	I. F.	F.	I M. F. U.		
Aleph	א	꤀	Δ	ϧ	ϧ	٤ ا	ا ا	ا	... ... ا ا	Alif	
Beth	ב	ב ב	כ	כ	ل	ل	ب ب	ب	ب ب ب ب	Be	
Gimel	ג		ر	ג	ג (N°8)	ج (N°8)	ج	ج	ج ج ج ج	Jim	
Daleth	ד	ד ד	ף	ל	כ	ى	د	د	د ... د ...	Dal	
He	ה	ה ה	ه	ה ה	ה ה	ه ه	ه	ه	ه ه ه ه	He	
Vau	ו	ו ו	و	ף	ף ף	و	و	و	و ... و ...	Waw	
Zayin	ז			ו	ו	ز	ز	ز	ز ... ز ...	Ze	
Cheth	ח	ת	ח	ת	ת	(N°3)	(N°3)	ح	ح ح ح ح	Ḥa	
Teth	ט	ט		ט	ט	ط	ط	ط	ط ط ط ط	Ṭa	
Yod	י	י י	י	י	י י	ى ى	ى	ى	ى ى ى ى	Ye	
Kaph	כ	כ כ	כ	כ	ב	ك	ك	ك	ك ك ك ك	Kef	
Lamed	ל	ל ל	ל	ל	ל	ل ل	ل ل	ل	ل ل ل ل	Lam	
Mem	מ	מ מ	מ	מ	מ	م م	م	م	م م م م	Mim	
Nun	נ	נ נ	נ	ל	ל	ن ن	ن	ن	ن ن ن ن	Nun	
Samekh	ס		ע	ס		(N°21)	(N°21)	س	س س س س	Sin	
ʻAyin	ע	ע ע	ע	ע	ע ע	ع ع	ع	ع	ع ع ع ع	ʻAin	
Pe	פ	כ		ב	פ פ	ف (N°19)	ف (N°19)	ف	ف ف ف ف	Fe	
Tsade	צ	צ צ		צ	צ	ص ص	ص	ص	ص ص ص ص	Ṣad	
Q'oph	ק	ק ק	כ	פ	פ	ق (N°17)	ق (N°17)	ق	ق ق ق ق	Qaf	
Resh	ר	ר ר		ר	ר ר	ر	ر	ر	ر ... ر ...	Re	
Shin	ש	ש ש	ש	ש	ש	ش (N°15)	ش (N°15)	ش	ش ش ش ش	Shin	
Teth	ת	ת ת	ת	ת	ת	ت ت	ت	ت	ت ت ت ت	Te	
	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	X.		

century A.H., and from the inscription of Abdalmalik round the Qubbet-es-Sakhra. It will be found to agree in all essential particulars with the primitive Kufic alphabet constructed by M. de Vogüé from the same materials.[1]

Having now traced back both the Kufic and the Neskhi alphabets to their earliest discoverable forms, it will be seen that the divergence is not great. It would seem that the oldest Neskhi has a claim almost as strong, if not even stronger than the Kufic, to represent the primitive type of the Arabic alphabet. Both may be considered to have been derived from a common prototype, not very remote, the Kufic probably representing the monumental style of Syria, and the Neskhi the more cursive script of Egypt. What was this common parent of the two Arabic alphabets is the question now to be discussed. It may at once be admitted that no absolute prototype can be pointed out. This, however, need be no matter for surprise. There is a strong antecedent probability that the alphabet of the Koran was merely a development of the local type of the Aramean alphabet which prevailed at Mecca and Medina in the lifetime of the Prophet. In this region therefore the prototype should be sought. But religious fanaticism has rendered the birthplace of Islam practically inaccessible to European travellers.

[1] See de Vogüé, in *Revue Archéologique*, 1865, vol. xi., plate 8; and *Mélanges d'Archéolcgie Orientale*, plate 8, p. 150; Waddington, *Inscriptions Grecques et Latines de la Syrie*, vol. iii., p. 564.

We consequently possess no early inscriptions from the neighbourhood of Mecca, so that the evidence by which the affiliations of alphabets are usually determined is in this case unattainable. In default of direct evidence as to the nature of the primitive alphabet of the Koreysh clan, it is necessary to fall back on the cognate alphabets of other Ishmaelite tribes. The inscriptions from the Northern frontier of Arabia, and from the Syrian desert between the Euphrates on the one hand and the Jordan and the Red Sea on the other, must therefore be examined.

These North-Arabian scripts may be designated by the general name of Nabathean. The connecting link between the Palmyrene and the Nabathean types of the Aramean alphabet is found in the alphabet of the volcanic region known as the Hauran (Auranitis), the ancient land of Bashan. Here a number of inscriptions, ranging in date from the 2nd century B.C. to the 2nd century A.D., were discovered by MM. Waddington and de Vogüé. The most important of these, an inscription on a basalt block in honour of Maliketh, belongs to the time of Herod the Great, and has been published in facsimile by the Palæographical Society. The alphabet of the Hauran, obtained mainly from this inscription, is given in column ii. of the Table on p. 326, and may be considered as an early transitional form of the Nabathean.

The curious Mendaïte alphabet to which reference has already been made (p. 296) is also intermediate

between the Palmyrene and other alphabets of Syria and the ancient Ishmaelite script. The earliest type of the Mendaïte is exhibited on the coins of the kings who reigned at Characene, on the lower Tigris, in the 2nd or 3rd century A.D. Of somewhat later date is the sepulchral inscription from Abushadr, near the confluence of the Tigris and Euphrates. The alphabet of this inscription is given in col. iii. of the Table on p. 326.

The Hauranitic and early Mendaïte can however only be considered as outlying members of the Nabathean alphabet, the chief monuments of which have been obtained from the ancient territories of Edom and Midian. Josephus assigns to the Nabatheans the whole region between the Red Sea and the Euphrates. They seem to have been mainly a pastoral people, who derived considerable profits from the transport trade between Arabia Felix and the Mediterranean, which was almost entirely in their hands. Their importance and wealth appears from the account given by Diodorus Siculus of the disastrous defeat which they inflicted on the expedition sent against them by Antigonus, in 312 B.C. They were in possession of a not inconsiderable literature, which however is only known to us from an Arabic translation of Kuthami's "Book of Nabathean Agriculture." The capital in which their kings resided was the powerful and wealthy city of Petra. Here and at Bozra a few inscriptions have been found in the typical Nabathean

alphabet. A large number of inscriptions in the same alphabet have also been obtained from rocks in the peninsula of Sinai. These records have been the subject of much controversy, and have even been referred, by enthusiastic writers, to the time of the sojourn of the Israelites in the desert after the Exodus. Their true nature has, however, been placed beyond dispute by the memorable essay of Dr. Levy which appeared in 1860.[1] He has shown that the greater number of the Sinaitic inscriptions are written in a Nabathean alphabet of the 3rd or 4th century A.D., and in an Ishmaelite or old Arabic dialect influenced by Aramean forms. They are of small intrinsic interest, being mainly records left by pilgrims or by wandering herdsmen; and their ordinary purport is the utterance of some pious sentiment, or the invocation on the writer of peace, blessings, and health, or the record that a certain person passed that way. They naturally contain no dates, though some of them clearly belong to the heathen period, while the Cross and other Christian emblems plainly testify that others date from Christian times.

The somewhat indefinite chronology of the Nabathean inscriptions has, however, been determined with

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[1] Levy, *Ueber die nabathäischen Inschriften von Petra, Hauran, vornehmlich der Sinai-Halbinsel, und über die Münzlegenden nabathäischer Könige, Z. D. M. G.*, vol. xiv., pp. 363 to 480. In 1840 Beer had already succeeded in deciphering the Nabathean alphabet, and in translating several of the Sinaitic inscriptions.

considerable certainty by reference to the legends on the coins struck by the Nabathean kings and queens. Of these coins about thirty types are known, bearing the names of Malchus, Aretas, Dabel, Gamalith, Sycaminth, and ranging in date from the time of Hyrcanus, Pompey and Herod, down to the reign of Trajan.

By the aid of these data it has been possible to establish with reasonable certainty the orderly chronological development of the Nabathean alphabet from the 2nd century B.C., to the 5th century A.D. Two representative stages are given in columns iv. and v. of the Table on p. 326.

From the Northern borderland of Arabia we have thus obtained a series of alphabets of that Ishmaelite type to which in all likelihood the pre-Islamic alphabet of Mecca must have belonged. A comparison with the early Kufic and Neskhi forms from Palestine and Egypt, as given in columns vi. and vii. of the Table, leaves little doubt as to the affiliation of the Arabic, and its true place as the most southern member of the Aramean family of alphabets.

The differences, which are not great, between the Nabathean of the 5th century and the Arabic of the 7th, are not more than might be expected when we remember that the former represents the irregular writing of wandering herdsmen, scrawling hasty records upon hard rocks, while the latter is obtained from costly codices and the coins and inscriptions of

powerful and wealthy monarchs. The shepherds of Sinai can hardly have possessed graphic skill equal to that of the artists to whom we owe the great inscription of Abdalmalik.

The Nabathean prototypes explain to some extent a puzzling peculiarity of the Arabic alphabet. Not only do the initial and final forms differ, as in Syriac and Hebrew, but letters of different origin have identical forms. Most of these assimilations and dissimilations may be traced to reasons of mere graphic convenience. In some other cases a different explanation seems to be required.[1] Take, for instance, *jim* and *kha*, the Arabic derivatives of *gimel* and *cheth*. The initial and final forms of *jim* are جـ and ـج, those of *kha* are خـ and ـخ. The Nabathean inscriptions, in which each of these letters has only a single form, show that *jim* has borrowed its final form from *kha*, while *kha* has taken its initial form from *jim*. The same is possibly the case with the sibilants *sin* سـ ـس, and *shin* شـ ـش. The initial forms seem to be derived from *samekh*, and the final forms from *shin*.[2]

The following Table shows the chief systems of

[1] These identical forms, whether obtained by borrowing or by assimilation, are noted by the bracketed numerals in columns vi. and vii. of the Table on p. 326.

[2] This curious process may perhaps be explained by the fact of the Arabic alphabet having been transmitted through a pastoral people of small literary culture. Sounds which, at one time, could not have differed more than the initial consonants in the words *jest* and *chest*, would not be distinguished in written records, the two primitive

TRANSLITERATIONS OF ARABIC AND PERSIAN LETTERS.

	Unconnected.	Final.	Medial.	Initial.	Sir W. Jones.	French (Chodzko).	German (Fürst).	Wright.	Lane.	Standard Alphabet (Lepsius).	Numismata Orientalia (Thomas).
Alif	ا		...	...	a	e, a	ʾ	ʾ	a	ʾa	a
Be	ب	ـب	ـبـ	بـ	b	b	b	b	b	b	b
*Pe	پ	ـپ	ـپـ	پـ	p	p	...	p	...	p	p
Te	ت	ـت	ـتـ	تـ	t	t	t	t	t	t	t
The	ث	ـث	ـثـ	ثـ	th, ṣ	s	t, θ	ṯ	th	θ	ṡ, th
Jim	ج	ـج	ـجـ	جـ	j	dj	ǵ	ǧ	j	dž	j
*Chim	چ	ـچ	ـچـ	چـ	ch	tch	...	c	...	tš	ch
Ḥa	ح	ـح	ـحـ	حـ	ḥ	hh	ḥ	ḥ	ḥ	li	ḥ
Kha	خ	ـخ	ـخـ	خـ	kh	kh	ḫ	ḫ	kh	χ	kh
Dal	د	ـد	...	...	d	d	d	d	d	d	d
Dzal	ذ	ـذ	...	...	ż	z	ḏ	ḏ	dh	δ	ż, ḏ
Re	ر	ـر	...	...	r	r	r	r	r	r	r
Ze	ز	ـز	...	...	ẓ	z	z	z	z	z	z
*Zhe	ژ	ـژ	...	...	j	j	...	j	...	ž	zh
Sin	س	ـس	ـسـ	سـ	s	s	s	s	s	s	s
Shin	ش	ـش	ـشـ	شـ	sh	ch	ś	ś	sh	š	sh
Ṣad	ص	ـص	ـصـ	صـ		s	ṣ	ṣ	ṣ	ṣ	ṣ
Ḍad	ض	ـض	ـضـ	ضـ	ż	z	ḍ	ḍ	ḍ	ẓ	ẓ, ḍ
Ṭa	ط	ـط	ـطـ	طـ	ṭ	t	ṭ	ṭ	ṭ	ḏ	ṭ
Ẓa	ظ	ـظ	ـظـ	ظـ	ẓ	z	ẓ	ẓ	ḍh	ð	ẓ
ʻAin	ع	ـع	ـعـ	عـ	ع	ʾa	ʸ	ʿ	ʾ, ạ	;	ʾ
Ghain	غ	ـغ	ـغـ	غـ	gh	gh	ġ	ġ	gh	γ	gh
Fe	ف	ـف	ـفـ	فـ	f	f	f	f	f	f	f
Qaf	ق	ـق	ـقـ	قـ	ḳ	q	ḳ	ḳ	ḳ	q	ḳ
Kef	ك	ـك	ـكـ	كـ	ḳ	k	k	k	k	k	k
*Gef	گ	ـگ	ـگـ	گـ	g	g	...	g	...	g	g
Lam	ل	ـل	ـلـ	لـ	l	l	l	l	l	l	l
Mim	م	ـم	ـمـ	مـ	m	m	m	m	m	m	m
Nùn	ن	ـن	ـنـ	نـ	n	n	n	n	n	n	n
Waw	و	ـو	...	...	v, w	v, oû	v, w, û	w	w	w	v, w
He	ه	ـه	ـهـ	هـ	ḥ	h, é	h	h	h	h	h
Ye	ى	ـى	ـيـ	يـ	y	y, î	y, i	y	y	y	y, i, e

transliteration which are in use for Arabic and Persian.[1] The venerable system of Sir William Jones stands first. This is followed by the methods used by M. Chodzko in his *Grammaire Persane;* by Dr. Fürst in his *Lexicon;* by Dr. William Wright in his *Arabic Grammar*; by Mr. Lane in his *Arabic Lexicon*, and by Professor Lepsius in his *Standard Alphabet.* The last column contains the convenient compromise which has been adopted in the *Numismata Orientalia*, which will probably be extensively used in English books.

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characters being conveniently adopted as initial and final forms. With increasing culture, a nicer phonetic distinction was required, and the characters were differentiated by diacritical marks. This explanation is confirmed by the fact that in the Karmathian Arabic, which is used by the pastoral tribes of northern Arabia, the alphabet has been reduced to seventeen letters, the broader phonetic distinctions being alone recognized.

The same process has taken place in the Mongolian alphabet, which was also transmitted through a people of little culture. The Syriac dentals and palatals were first assimilated and then differentiated.

[1] This Table is essentially identical with that which appears in vol. i. of the *International Numismata Orientalia.* The letters marked with an asterisk are used only in Persian.

CHAPTER VI.

THE SOUTH SEMITIC ALPHABETS.

§ 1. *Affiliation of the South Semitic Alphabets.* § 2. *The Thamudite Inscriptions of Safa.* § 3. *The Himyaritic or Sabean Alphabet.* § 4. *The Ethiopic.*

§ 1. AFFILIATION OF THE SOUTH SEMITIC ALPHABETS.

At a very early period the primitive Semitic alphabet had parted into three great stems.[1] The first was the alphabet of Phœnicia, which may be considered as the central trunk, out of which grew the great Hellenic branch from which are derived the various alphabets of Europe; the second was the Aramean, the source of the alphabets of western and central Asia; and the third was the primitive alphabet of Arabia, which became the parent of the alphabets of Abyssinia and of India.

For this important family of alphabets it is difficult to find a generic name altogether satisfactory. Arabian and Ishmaelite are misleading appellations; the name Ethiopic, which is often used, applies properly only to

[1] See the Genealogical Table of Alphabets on p. 81.

one alphabet of the group; the otherwise excellent term 'Joktanite' has the disadvantage of being unfamiliar to English ears; so that the only resource is to fall back on a well established but somewhat awkward descriptive phrase, SOUTH SEMITIC, which may be adopted for want of a better designation.

Up to a recent period the only alphabet of this family known to scholars was the Ethiopic, the ancient liturgical script of the Abyssinian Christians. It conserves translations of several apocryphal works, such as the Book of Enoch, the Apocalypse of Isaiah, and the Book of Jubilees, the originals of which have perished wholly or in part, as well as an early version of the Bible, which was in existence in the 4th century, as appears from an allusion to it in the writings of St. Chrysostom.

Owing to the remarkable isolation of the Ethiopic alphabet it is unusually difficult to determine the time and place of its origin, or even its precise parentage. That it belongs to the Semitic class is shown by the retention of the ancient names of the letters, while a considerable antiquity is indicated by the extensive disturbance of the alphabetic order, by the transformation of the alphabet into a syllabary, and by the extraordinary transmutation of the letters, which bear only a slight resemblance to those of other alphabets.

A few years ago, when the Ethiopic was the only known alphabet of the group, any attempt at a closer determination of its date and affiliation must have

been merely empirical. Quite recently, however, two older alphabets of the same class, exhibiting forms of a transitional character, have been brought to light. One of these intermediate alphabets, the Sabean or Himyaritic, which supplies the direct ancestral type of the Ethiopic, has been obtained from numerous inscriptions found near Aden, and in other parts of southern Arabia. The Himyaritic inscriptions supply the archaic forms of the Ethiopic letters at a period prior to the commencement of the Christian era, but the approximation to any of the alphabets of the North Semitic stock is hardly, if at all, appreciable. It is only within the last five or six years that the discovery of inscriptions at Safa, in the neighbourhood of Damascus, has supplied the needful intermediate link between the alphabets of the northern and southern Semites. These alphabets are given in the Table on the following page.

The alphabets of the south Semitic group have necessarily to be assigned to one of the three north Semitic types, that is, either to the Tyrian, or the Sidonian, or the Aramean. Taking the Himyaritic as the most primitive representative of the south Semitic alphabets, and testing it by means of the characteristics which have already been determined and formulated,[1] it will be seen that the loops of the Himyaritic letters *daleth* 𐩵, *teth* 𐩸, *'ayin* 𐩠, and *qoph* 𐩲, being closed, this alphabet cannot belong

[1] See pp. 201 and 251 *supra*, and the Tables on pp. 227 and 250.

THE SOUTH SEMITIC ALPHABETS.

NORTH SEMITIC.				JOKTANITE.		ETHIOPIC.					
Names.	Values.	Israelite. Sec. vii. B.C.	Chaldean & Nabathean. Sec. i.	Thamudite. (Safa.) Sec. i.	Sabean. Sec. ii. & i. B.C.	Oldest Ethiopic. Sec. iv. A.D.	Axum. Sec. v.	Geez.	Modern Amharic.	Values.	Names.
Aleph	*'a*									*'a*	alf
Beth	*b*									*b*	bet
										p	pait
Gimel	*g*									*g*	gēmel
Daleth	*d*									*d*	dent
He	*h*									*h*	hoi
Vau	*v*									*w*	wawe
Zayin	*z*									*z*	zai
Cheth	*ch*									*ḥ*	haut
										kh	kharn
Teth	*ṭ*									*ṭ*	ṭait
Yod	*y*									*y*	yaman
Kaph	*k*									*k*	kaf
Lamed	*l*									*l*	lawe
Mem	*m*									*m*	mai
Nun	*n*									*n*	naḥas
Samekh	*s*									*s*	sat
ʿAyin	*ʿa*									*ʿa*	ʿain
Pe	*p*									*f*	ef
Tsade	*ts*									*ts*	ṭsadai
Q'oph	*q*									*q*	qaf
Resh	*r*									*r*	recs
Shin	*sh*									*sh*	saut
Tau	*t*									*t*	tawe
		I.	II.	III.	IV.	V.	VI.	VII.	IX.		

to the Aramean type.[1] On the other hand, the zigzag form of *shin* ≷, the extremely primitive forms of *tau* ✕ and *qoph* ϕ, the upright positions of *yod* ϒ and *gimel* ⅂, and the closed form of *teth* ⊞, are sufficient to prove that it was not derived from the Sidonian type of the Phœnician alphabet. In fact, with respect to all the most important alphabetic tests, it agrees with the Tyrian and Israelite forms as they appear in the very earliest inscriptions, those of the 10th and following centuries. Its origin must therefore be assigned to a period certainly earlier, and probably much earlier, than the 6th century B.C., when the archaic alphabet of Tyre was replaced in the west by the Sidonian, and in the east by the Aramean.

This very early date is in accordance with every other available consideration. The general aspect of the Himyaritic script, so square and monumental, resembles very remarkably the style of the earliest Phœnician and Greek inscriptions, as exhibited before the commencement of the cursive tendencies shown in the Sidonian and Aramean writing of the 7th and following centuries. Again, the fact that a well developed alphabet, apparently derived from some antetype of the Himyaritic writing, was employed in India in the middle of the 3rd century B.C., argues a considerable prior antiquity for the South Arabian script. Nor must it be forgotten that the wide dissemblance between even the oldest Sabean letters and any Phœnician

[1] The nearest Aramean forms are given in col. ii. of the Table.

prototypes with which we are acquainted, demands a very prolonged period for the gradual development of these differences of form.

On all these grounds we are led to the conclusion that the Tyrian alphabet must have been communicated to the tribes of southern Arabia several centuries at least before the 3rd century B.C. There is indeed no reason why the alphabet should not have been conveyed to Saba and Sheba as early as the reign of Solomon, when the direct trade route by the Red Sea was opened by the enterprise of Hiram, king of Tyre. This seems the most probable date both on historical and palæographical grounds, and any appreciably later period would hardly allow sufficient time for the evolution of the great dissemblances between the forms of the Tyrian and Sabean letters.[1]

Any difficulties which may be felt as to the admission of such an early date for the origin of the alphabet of southern Arabia will be diminished if we remember that this region was the centre of a very ancient civilization, and was also in close commercial relations with the northern Semites. This would make the communication of the art of alphabetic writing an event almost as inevitable as was its contemporaneous transmission to the Greeks.

[1] As to the very early date which must be assigned for the origin of the Himyaritic alphabet, see Müller in the *Z. D. M. G.* for 1876, p. 522. The date of the earliest Sabean inscriptions will be presently discussed. See p. 347 *infra*.

There is abundant evidence that Arabia Felix was the seat of one of the oldest civilizations of the world, and in the possession of great commercial wealth. As early as the 17th century B.C. it was pillaged by Thothmes III., and again in the 8th and 7th centuries, in spite of its inaccessibility, its reputed opulence excited the cupidity of Tiglath Pileser, Sargon and Sennacherib. In the 14th century B.C. the spices of Arabia Felix, and even silks from India, were brought to Babylonia by the merchants of Yemen. In the 10th century the Queen of Sheba brought gifts to Solomon, whose great riches were largely derived from the new trade route[1] opened in his reign by the Phœnicians from Elath down the eastern arm of the Red Sea, by which the payment of black-mail to the nomad tribes of central Arabia was avoided. In the days of Pharaoh Necho the route was changed to Suez, and Nebuchadnezzar transferred it to the line of the Persian Gulf.

Thus, from an immemorial time, Yemen had served as the point of connection between Eastern and Western Asia, and as the central mart from which the much desired products of Arabia, Eastern Africa, and India —spices, silks, ivory, sandal-wood, "apes and peacocks" were transported to the shores of the Mediterranean. It was as the emporium of this lucrative

[1] The old camel route from the land of the Sabeans took seventy days to Elath, whence it passed by Bozra, Kir-Moab, Rabbath Ammon and Damascus to Phœnicia.

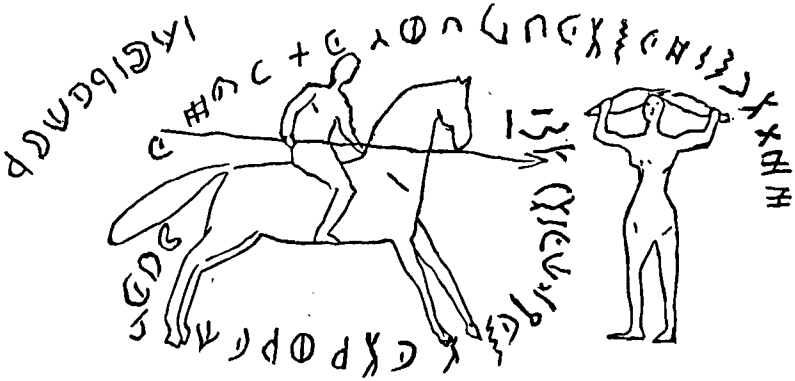
traffic that Yemen derived the immense wealth for which it was so famous in the ancient world. Thus Agatharchides, writing in the 2nd century B.C., affirms that the Sabean people were more opulent than any other nation in the world, their palaces being furnished with gilded columns, while their banquets were served on vessels of gold and silver. A little later Artemidorus of Ephesus also records the wealth and luxury of the Sabeans. Their land abounds with evidences of its ancient splendour. The astonishment of travellers is still excited by the remains of vast aqueducts and terraced gardens, and the ruins of magnificent structures of hewn stone.

It is plain that the land of the Sabeans must have been one of the chief centres of primitive civilization. It is therefore no matter for surprise that a people of such high culture, enjoying organized commercial intercourse with the Mediterranean lands, should have acquired a knowledge of the Phœnician alphabet soon after the time when the ships of Hiram of Tyre began to frequent their ports.

§ 2. THE THAMUDITE INSCRIPTIONS OF SAFA.

Safa is a volcanic region south-east of Damascus and nearly due east of the Jebel Hauran. The barren soil is covered with rounded fragments of black basalt varying from the size of the fist to that of a man's body. On many of these blocks, specimens of which

may be seen in the Louvre, inscriptions are engraved. The inscribed blocks may be counted by thousands, and they are found not only in the neighbourhood of inhabited places, but also near the tracks leading through the desert. They rarely occur singly, being usually found in groups, collected on the huge tumuli called *rijm*, which cover the country. These mounds are supposed to owe their origin to an ancient custom, frequently mentioned in the Bible, of raising monumental cairns, a practice still employed by the Bedouin to mark the site of a battle-field or the tomb of a chief. The records found on the *rijm* are occasionally accompanied by illustrative designs, executed with considerable graphic skill, as in the accompanying sketch, which represents the capture of a female slave.



The existence of the inscriptions of Safa, of which nearly 700 have been copied, was first made known by Cyril Graham. Numerous transcriptions have been published by Wetzstein, and also by de Vogüé and

Waddington. The resemblance to the Himyaritic writing was at once recognized by Blau and Wetzstein, and de Vogüé tried to decipher them, but without result. Another partially successful attempt was made by D. H. Müller in 1876. He assigned the correct values to five of the characters which are nearest to the Himyaritic, but failed conspicuously with the remainder. In the following year the problem was finally solved by J. Halévy.[1]

These inscriptions differ wholly in their alphabet and dialect from the nearly contemporaneous Aramean records found in the neighbouring region of the Hauran.[2] It is evident that these deserts were inhabited by races of distinct origin, the one being Joktanite and the other Nabathean. It is difficult to account for the presence of a South Semitic population so far to the north. Wetzstein attributes the inscriptions of Safa to Himyaritic tribes who migrated northwards during the earlier centuries of the Christian era, a continuous stream of emigration, as Caussin de Perceval has shown, having set in from the south of Arabia. Halévy maintains that many of these inscriptions were

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[1] Halévy, *Essai sur les Inscriptions du Safa*, in the *Journal Asiatique*, Seventh Series, vol. x., pp. 293 to 450 (1877); and in *Z. D. M. G.*, vol. xxxii. (1878). See also Müller's Paper in the *Z. D. M. G.*, vol. xxx. (1876); and Wetzstein, *Reisebericht über Hauran und die Trachonen*, from which the facsimile given above is taken.

[2] See p. 328 *supra*, and compare the Hauran alphabet given in column ii. of the Arabic Table on p. 326.

written by Thamudite soldiers in the Roman army; but it seems on the whole more probable either that a South Arabian or Joktanite population had been settled from time immemorial in the Safa district, or that pastoral Thamudite tribes may have ranged as far as Safa in search of summer pasture.[1]

The inscriptions of Safa are of singular interest, as they supply forms transitional between the alphabets of the Northern and Southern Semites, thus explaining how the Ethiopic letters were obtained from the Phœnician characters, to which they bear so little apparent likeness.

§ 3. THE HIMYARITIC OR SABEAN ALPHABET.

The Sabean is the most archaic of the South Semitic alphabets. The Ethiopic is only its modern development; and the alphabet of Safa, though intermediate between the Phœnician and the Sabean, retains less primitive forms of several letters, such as *nun*, *teth*, and *gimel*. Some lost alphabet, of which we have no knowledge, must have been the archetype

[1] The Thamudites came from the district now called the Hejaz. It lies along the coast of the Red Sea from Medina northwards, and is about 400 miles from Safa, a distance quite within the range of the annual migrations of Arab tribes. Inscriptions in a character similar to that of Safa were found by Mr. Blunt on the rocks of Jebel Shammar in Nejd, close to the regular pilgrim route from Mecca to Baghdad.—Blunt, *Pilgrimage to Nejd.*

alike of the Safaite, the Sabean, and of the Indian alphabet of Asoka.

In the Arabian tradition the common progenitor of the tribes of Yemen was Kahtan, who is to be identified with the Joktan of the Book of Genesis. Abd-Shams-Saba, said to have been the great grandson of Kahtan, is the Eponymus of the Sabeans, the name by which these tribes were known to the Northern Semites.[1] His son was Himyar, the Eponymus of the Himyarites, who are first mentioned by ancient authors about the year 100 B.C., when Hareth, a descendant of Himyar, obtained the Sabean throne; the place of the Sabeans in history being henceforth taken by the Himyarites, who are the Homerites of Western writers.[2] The inscriptions of Southern Arabia date mainly from the period of Himyaritic supremacy, but as some of them go back to the Sabean epoch, the alphabet may also lay claim to the earlier Sabean name. Hence the ancient Joktanite alphabet of Southern Arabia is often designated in its earliest stage as the Sabean, and in its later development as the Himyaritic.

Till recently it was believed that no monuments of the Sabean alphabet were older than 120 B.C., but a recent discovery of Schlumberger[3] has rendered it

[1] The "kings of Sheba and Saba" are referred to in the Seventy-second Psalm, which is probably of Solomonic age.

[2] See Duncker, *Hist. of Antiquity*, vol. i., p. 327.

[3] Schlumberger, *Le Trésor de San'â; Monnaies Himyaritiques*, Paris, 1880. Cf. *Athenæum*, July 16, 1881.

possible to throw back this date to a somewhat earlier period. When resident at Constantinople in 1879 M. Schlumberger became the fortunate possessor of some 200 Himyaritic coins, most of them unknown to numismatic science. There are two types, the most ancient[1] exhibiting on the reverse the Athenian emblem of the owl, with the Greek letters **AΘE**, and a Sabean legend. The more recent type[2] has the owl on the reverse, and on the obverse the head of Augustus with a Himyaritic inscription. This type must therefore belong to the second half of the 1st century B.C. The coins of the earlier type were plainly imitations of Athenian mintages, just as the early Gaulish and late British coins were copied from the 'Philippi' of Macedon, which the tribes of Gaul are supposed to have brought back with them in the 3rd century B.C., after their inroad into Greece under Brennus. M. Schlumberger concludes that the types imitated in the earlier Sabean coins are of Seleucidan date, probably of the time of Seleucus IV. and Antiochus Epiphanes, 187–164 B.C.[3]

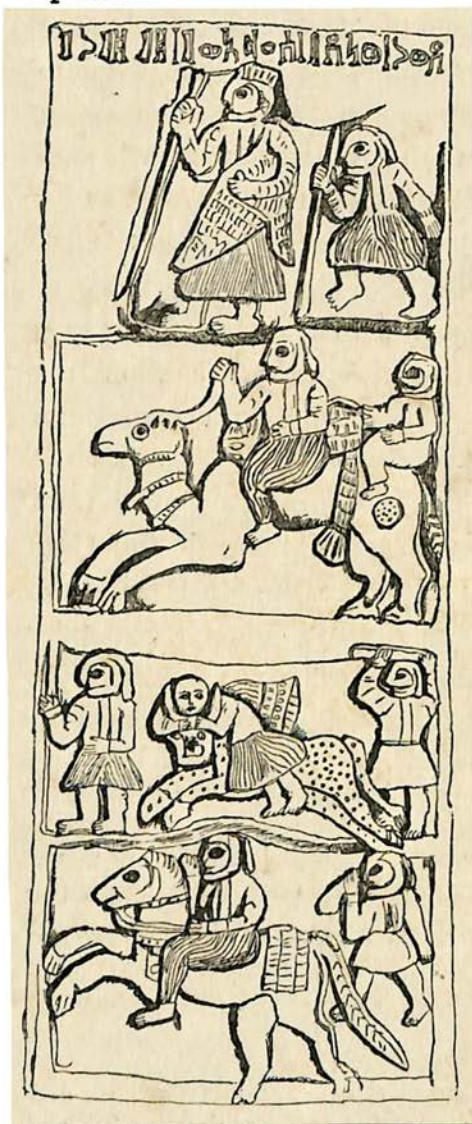
Himyaritic inscriptions are very numerous; the greater number are believed to date from about the period of the Christian Era. Some of them, however,

[1] *Ib.*, plates i. and ii., Nos. 1 to 36.

[2] *Ib.*, plates ii. and iii., Nos. 37 to 60.

[3] On some of the coins the legend is in a character not yet deciphered, which may possibly supply an earlier or intermediate type of the Himyaritic alphabet.

belong to a somewhat earlier stage of the Sabean alphabet.[1]



A facsimile of one of the most interesting monuments left by this ancient people is here reproduced. The sculpture represents four scenes from the life of the Lord of Maẓmar, who was evidently a personage of great importance. In the upper compartment he marches on foot in all his dignity, with shield, sword, and helmet, attended by his servant. In the next compartment he is journeying on a camel with the same attendant mounted behind him, and in the third he is bringing a cow for sacrifice to

[1] Among the more ancient inscriptions is the record on a seal found at Anah on the Euphrates. The figures are of good Baby-

Ashtar, as is indicated by the priest who precedes him bearing the sacrificial knife, and by the hands of the offerer clasped over the forehead of the victim,[1] whose crescent horns are depicted so as to represent the symbol of the goddess. Lastly, he is seen on horseback, unarmed, evidently on a progress of state, as his attendant accompanies him on foot. The inscription is from right to left, the words being divided by vertical lines. It reads:—

צור | ונצב | סעדאום | זמזמרם

"The effigy and monument of Sa'adavam of Mazmar."[2]

§ 4. THE ETHIOPIC ALPHABET.

The earliest forms of the language and alphabet of Abyssinia and Southern Arabia are exhibited in the Sabean and Himyaritic inscriptions just discussed. From the south of Arabia, where these inscriptions have been found, the Joktanite Semites crossed over

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lonian workmanship of the ante-Achæmenian period, and can hardly be later than the 6th or 7th century B.C. The Sabean legend is now believed to be of later execution than the seal, but it exhibits primitive forms of three letters, *alf*, *kaf*, and *rees*. The inscription was published by Sir H. Rawlinson in the *J. R. A. S.*, N. S., vol. i., p. 234. A large number of Himyaritic inscriptions have been published in the *Z. D. M. G.*; by Halévy in his *Études Sabéennes*, and by Prideaux in *Trans. Soc. Bibl. Arch.*

[1] See Leviticus iv., 4.

[2] See the Plate by Euting, and the description by D. H. Müller, in the *Z. D. M. G.*, vol. xxx., p. 115.

into Abyssinia. They called themselves Ghe'ez, "the emigrants," and their language Lisana Ghe'ez, "the speech of the emigrants." In the 4th century they were converted to Christianity and subjected to Greek influences. The alphabet of the early Christian period, which is still used by the Abyssinians for liturgical purposes, is usually called the Ethiopic. It was converted into a syllabary, written from right to left, additional letters being formed by differentiation, and the letters of the Greek alphabet were employed as numerals. About the year 1300 A.D. a family from the province of Amhara obtained possession of the throne, and the Ghe'ez language has been replaced in the court and capital of Gondar by the Amharic, a Semitic dialect largely corrupted by African idioms. The Amharic script, which is used for secular purposes, is a cursive form of the old Ethiopic, enlarged by the addition of seven new letters.

The most important monuments of the ancient Ethiopic alphabet are the two great inscriptions from Axum, the former capital of the country, which were discovered by Rüppel in 1830.[1] In the longer inscription, which is cut on three large limestone slabs, about four feet in height, "Halen, king of Axum and of Himyar, of Raidan and of Saba, and of Salhen,"

[1] Rüppel, *Reise in Abyssinien*, 1838, vol. ii., pp. 268 to 281, and Plate v. See also Dillmann, *Grammatik der Aethiopischen Sprache*, 1857; and *Z. D. M. G.*, vol. vii. (1853).

commemorates his victory over the king of Falasha, and records the number of the slain, and the amount of booty which was taken. The date of this inscription, which is assigned to the 5th century A.D., is determined by the fact that it must be later than the conversion of the Abyssinians in the 4th century, and earlier than the conquest of Arabia Felix by the Sassanian king Chosroes in the 6th century.[1]

A Greek inscription of the time of Constantius (343–356 A.D.) was also found by Rüppel at Axum, together with some shorter Ethiopic inscriptions on a lava altar and elsewhere, which may be assigned to a still earlier date. They are too fragmentary and obscure to yield any very positive results, but are valuable as supplying a transitional type of the Ethiopic letters which is nearly identical with the Himyaritic.[2]

The early Ethiopic, like the Himyaritic and the Safaite, is known solely from inscriptions. We possess it only as a script, not as an alphabet. But in the later Ethiopic the order and names of the letters are known. From the Table on the next page it will be

[1] The Axumite kings extended their dominion over a great part of Arabia Felix, where they established a great Christian State, which was in alliance with Justinian (527 to 565 A.D.). Remains of great Christian churches have been found at Sana and elsewhere. Chosroes conquered Yemen, and suppressed Christianity. The great Axum inscription claims the Arabians as still subject to the Axumite king.

[2] The alphabets of these inscriptions will be found in columns v. and vi. of Table on p. 338.

THE ETHIOPIC ALPHABET.

Names.	Values.	Forms.						
		with *ä*	with *u*	with *i*	with *a*	with *é*	with *ë*	with *o*
Hoi	*h*	ሀ	ሁ	ሂ	ሃ	ሄ	ህ	ሆ
Lawe	*l*	ለ	ሉ	ሊ	ላ	ሌ	ል	ሎ
Ḥaut	*ḥ*	ሐ	ሑ	ሒ	ሓ	ሔ	ሕ	ሖ
Mai	*m*	መ	መ	ሚ	ማ	ሜ	ም	ሞ
Saut	*s*	ሠ	ሡ	ሢ	ሣ	ሤ	ሥ	ሦ
Rees	*r*	ረ	ሩ	ሪ	ራ	ሬ	ር	ሮ
Sat	*s*	ሰ	ሱ	ሲ	ሳ	ሴ	ስ	ሶ
Qaf	*q*	ቀ	ቁ	ቂ	ቃ	ቄ	ቅ	ቆ
Bet	*b*	በ	ቡ	ቢ	ባ	ቤ	ብ	ቦ
Tawe	*t*	ተ	ቱ	ቲ	ታ	ቴ	ት	ቶ
Kharm	*kh*	ኀ	ኁ	ኂ	ኃ	ኄ	ኅ	ኆ
Naḥas	*n*	ነ	ኑ	ኒ	ና	ኔ	ን	ኖ
Alf	*'a*	አ	ኡ	ኢ	ኣ	ኤ	እ	ኦ
Kaf	*k*	ከ	ኩ	ኪ	ካ	ኬ	ክ	ኮ
Wawe	*w*	ወ	ዉ	ዊ	ዋ	ዌ	ው	ዎ
ʻAin	*ʻa*	ዐ	ዑ	ዒ	ዓ	ዔ	ዕ	ዖ
Zai	*z*	ዘ	ዙ	ዚ	ዛ	ዜ	ዝ	ዞ
Yaman	*y*	የ	ዩ	ዪ	ያ	ዬ	ይ	ዮ
Dent	*d*	ደ	ዱ	ዲ	ዳ	ዴ	ድ	ዶ
Gemel	*g*	ገ	ጉ	ጊ	ጋ	ጌ	ግ	ጎ
Ṭaiṭ	*ṭ*	ጠ	ጡ	ጢ	ጣ	ጤ	ጥ	ጦ
Pait	*p*	ጰ	ጱ	ጲ	ጳ	ጴ	ጵ	ጶ
Tsadai	*ts*	ጸ	ጹ	ጺ	ጻ	ጼ	ጽ	ጾ
Dzappa	*dz*	ፀ	ፁ	ፂ	ፃ	ፄ	ፅ	ፆ
Ef	*f*	ፈ	ፉ	ፊ	ፋ	ፌ	ፍ	ፎ
Pa	*p*	ፐ	ፑ	ፒ	ፓ	ፔ	ፕ	ፖ

seen that though the ancient alphabetic order has been greatly modified, and the alphabet has been turned into a syllabary, the primitive names have either been translated, or preserved with so little change, that the identification of the letters with their Phœnician prototypes can be effected with much greater certainty than by means of mere resemblances of form, which are frequently deceptive.

Turning to the Table of the South Semitic alphabets on p. 338, it will be seen that the letters *alf*, *bet*, *gemel*, *wawe*, *tait*, *kaf*, *'ain*, *ṣadai*, *qaf*, *rees* and *tawe*, retain their ancient names practically unaltered. In other instances we have the Ethiopic equivalent of the old Phœnician word. Thus *mai* is the Ethiopic word for 'water,' corresponding in meaning to the Phœnician *mem*, while the name *ḥaut* is the South Semitic equivalent of the North Semitic *cheth*, a 'fence.' In three instances the North Semitic word, having no Ethiopic equivalent, has become meaningless, and the name has naturally suffered from phonetic corruption. Hence we have *zai* for *zayin*, *dent* for *daleth*, and *lawe* for *lamed*. In other cases, where the North Semitic word has no South Semitic representative, a name of analogous signification has been substituted. Thus the word *yod* having become *ad* in Ethiopic, owing to phonetic decay, was no longer acrologically appropriate as the name of the letter ፐ, *y*. Hence *yaman*, the 'right hand,' a new acrologic term of nearly equivalent meaning, was substituted for the old name *yod*, 'hand.'

The same plan has been pursued in another case. The North Semitic word *nun*, 'fish,' not existing in South Semitic dialects, an acrologic term of somewhat similar meaning has been substituted for it, and the letter 𐤍 *n* is called *nahas*, a 'snake.' In one case an analogous meaning has been preserved at the cost of a departure from the strict acrologic principle. Instead of *pe*, 'mouth,' we have *ef*, which means 'nose' in Ethiopic.

Two of the Ethiopic names have not been satisfactorily explained. These are *saut*, which corresponds to *shin*, and *sat*, which represents *samekh*. That this failure should occur in the case of the sibilants is especially noteworthy, as the correspondence of the Greek and Semitic names, which in other cases is so exact, fails also in the case of the sibilants.[1] The conjecture may perhaps be hazarded that at the early

[1] In the Greek alphabet *zeta* has the form and place of *zayin* and the name of *tsade*; *sigma* has the form and place of *shin* and the name of *samekh*; *xi* has the form and place of *samekh* and the name of *shin*; while *san* had the form and place of *tsade* and the name of *zayin*. It is possible that in Ethiopic the close assimilation of the forms of *sat* 𐤑 and *tsadai* 𐤑 may have brought about an assimilation of the names, just as in Arabic the names as well as the forms of *sin* and *shin* are assimilated. Possibly *saut*, whose form is manifestly derived from *shin*, may also have obtained its name from *tsade*, assimilated by superficial imitation, as Dillmann has suggested, to *haut*, the forms of the two letters bearing some resemblance. With regard to *sat*, however, it must be borne in mind that *semkath*, the Syriac name of the fifteenth letter, points to a primitive form from which the Hebrew *samekh*, the Syriac *semkath*, the Greek *sigma*, and the Ethiopic *sat*, may all have been obtained by phonetic decay.

time when the Greek and Joktanite alphabets originated, the names, powers, and positions of the sibilants had not been definitively fixed in the mother alphabet of Phœnicia.[1]

In the Ethiopic alphabet there has been extensive dislocation in the primitive order of the letters. This must be attributed to the desire of bringing together for convenient comparison letters closely resembling one another in their forms, a course which has greatly affected the arrangement of the letters in the Arabic and other alphabets. An explanation is thus afforded of the juxtaposition of *yaman* ፐ and *dent* ፘ, of *pait* ጰ and *tsadai* ጸ, of *kharm* ኀ and *nahas* ኍ, and of *alf* ኧ and *kaf* ከ.[2]

The Ethiopic letters are more numerous than those of the North Semitic alphabet, additional characters having been obtained by differentiation from the primitive stock. This process began at a very early time, and was carried on during many centuries. Even in the Himyaritic inscriptions some of these differentiated forms make their appearance, while others

[1] See p. 194, *supra*. The names of the Ethiopic letters have been discussed by Dillmann, *Grammatik der äthiopischen Sprache* (1857); and by Lagarde, *Symmicta*, i., pp. 114, 115.

[2] That these changes were gradually effected is curiously indicated by the position of *lawe* ለ near the head of the alphabet. This letter must have been transferred from the twelfth to the second station on account of its resemblance to *alf* ኧ, before *alf* was moved downwards, and must have retained its new position, otherwise so inexplicable, when *alf* had been brought into juxtaposition with *kaf*.

which are absent from the ecclesiastical Ethiopic have been introduced into the modern Amharic alphabet.

Thus from *cheth*, representing the two cognate Arabic sounds ح and خ, we have the two letters *haut* ሐ and *kharm* ኀ, whose origin may be traced back to the Sabean alphabet. The name *haut* is simply the name *cheth* modified according to the law of letter-change, while *kharm* is an acrologic translation of the primitive name, meaning, like *cheth*, a 'hedge' or 'palisade.' The letter *pait* ጰ again is a differentiated form of *bet* በ, the modification of the name being due to assonance with *tait*, next to which it stands in the Ethiopic alphabet. Both forms may be traced back to the Himyaritic alphabet. The name of the new letter *dzappa* ፀ, obtained by differentiation from *tsadai*, is not, as Gesenius imagined, derived from the Greek *kappa*, but is probably a term descriptive of the appearance of the letter, meaning, as it does, a 'bar,' or 'crossbeam.'

The process of differentiation was continued after the old Ethiopic alphabet had given place to the Amharic. In the Amharic there are seven new letters, constructed on the same principle, by the addition of an upper bar. They are:—

Ethiopic: ሰ *s* ጠ *t* ነ *n* ከ *k* ዘ *z* ደ *d* መ *t*
Amharic: ሸ *sh* ጨ *tsh* ኘ *gn* ኸ *kh* ዠ *zsh* ጀ *j* ጘ *tsh*

The most remarkable feature of the Ethiopic alphabet is the method by which the vowels are

denoted. A somewhat similar, but much less elaborate system, is found in the Mendaite alphabet (see p. 297), in which syllabic signs have been formed by affixing to the consonants abraded forms of *aleph*, *vau*, and *yod*. An earlier example of this notation is found in the alphabet used in the Indian inscriptions of Asoka (250 B.C.), medial vowel-signs being introduced into the body of the covering consonant. The Himyaritic inscriptions show no trace of this device, and it seems more probable that the Ethiopic vowel notation was independently invented, than that it was borrowed from the Indian system.[1] But the Mendaite and Indian syllabaries, in which the suffixed vocalic signs are manifestly only abraded letters, makes it probable that the 'tags' in the Ethiopic syllabary originated in a similar way.[2]

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[1] Lepsius, *Anordnung des Alphabets*, p. 76, contends for a much greater influence of the Indian on the Ethiopic alphabet than is here suggested. Most of the resemblances between the Ethiopic and old Indian alphabets may, however, be sufficiently explained by their descent from a common source.

[2] The present extended development of the Ethiopic vowel notation is probably to a great extent merely arbitrary and artificial; but the syllabic suffixes which denote the vowels *ē* and *ā* occasionally bear such a resemblance to the letters *'ain* and *alf* , as to suggest the hypothesis that the germs of the vocalic suffixes were abraded letters. Ancient Ethiopic codices may possibly afford a solution of the problem.

In this volume the origin of the Semitic alphabet has been discussed, and the history of the three great stems into which it parted has been traced. Each of the three Semitic stems became the source of a group of non-Semitic alphabets. To the Phœnician may be traced the origin of the Greek alphabet, which became the parent of the various alphabets of Europe. From the Aramean proceeded the Iranian group of alphabets, which replaced the Cuneiform writing as the script of the Eastern provinces of the Persian empire. To the South Semitic type must be referred the ancient alphabet of India, with its numberless descendants. It now only remains to investigate the history of the three Aryan alphabetic families—the European, the Iranian, and the Indian—which were derived by independent transmission from the three great types of the Semitic alphabet.

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